UNIVERSITY OF GONDAR

COLLEGE OF MEDICINE AND HEALTH SCIENCE

INSTITUTE OF PUBLIC HEALTH

DEMAND FOR LONG ACTING AND PERMANENT CONTRACEPTIVE METHODS AND ASSOCIATED FACTORS AMONG MARRIED WOMEN IN FITCHE TOWN, OROMIA REGION, CENTERAL ETHIOPIA, 2012.

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A THESIS SUBMITTED TO THE INSTITUTE OF PUBLIC HEALTH, COLLEGE OF MEDICINE AND HEATLH SCIENCE, UNIVERSITY OF GONDAR IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH.

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☐ **Examiner**

DEDICATION

This thesis work is dedicated to my sweet heart Sr. Alemtsehay Bersisa for her great contribution during all over the thesis work.

ACKNOWLEDGEMENT

First of all I would like to thank my advisor Mezgebu Yitayal (MPH) for this all round support, encouragements and comments in a range of aspects of this thesis work starting from proposal development to the write up of this outcome. Also I would like to express my thanks to Institute of Public Health, College of Medicine and Health Science, University of Gondar for giving me the chance to conduct this thesis. Besides, I would like to acknowledge all data collectors, supervisor and participants of survey. Finally, my appreciation goes to all my instructors, friends and families for their advice, moral support through the whole process of this study.

ACRONYMS

AOR	Adjusted Odds Ratio
CSA	Central Statistical Agency
CBRHA	Community Based Reproductive Health Agents
DHS	Demographic and Health Survey
EDHS	Ethiopia Demographic and Health Survey
ETB	Ethiopia Birr
FP	Family Planning
IEC	Information Education and Communication
IUDs	Intrauterine Devices
LAPMs	Long-Acting and/or Permanent Methods
MM	Modern Method
MOH	Ministry of Health
NMs	Natural Methods
OR	Odds Ratio
SAMs	Short Acting Methods
TFR	Total Fertility Rate

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ABSTRACT

Background:-Evidence suggests that there is a substantial unmet need/ unsatisfied demand for LAPMs in sub-Saharan Africa. A discrepancy exists between the proportion of women who wish to stop having children (unmet need for limiting) and the proportions that are using LAPM (met need); however, there is limited evidence to show demand for LAPMs and associated factors in Ethiopia. So, assessing the demand and identifying the factors are important for implementation.

Objective:- To assess demand for long acting and permanent contraceptive methods and associated factors among currently married women in Fitche Town, North Showa Zone, Oromia Regional state, Central Ethiopia, 2012.

Methods: - Community based cross-sectional survey was conducted from April 10 to 30 on 746 currently married women living in Fitche town to assess demand for long acting and permanent contraceptive methods and associated factors. Cluster sampling technique was used to select study subjects. Data was collected through interviewing by using structured questionnaire. Data was entered and analyzed by SPSS version 16 and Bivariate and multivariate logistic regression analysis was conducted to identify factors associated with demand for LAPMs.

Results: - From 746 women of the study participant, 291(39%) of the respondents were using family planning method. Among study participants, 84(11.3%), 203(27.2%) and 4(0.5%) were used LAPMs, short acting and natural methods respectively. sixty five (8.71%) women had unmet need for LAPMs. The total demand of LAPMs was 149(19.97%). Desired numbers of children, discussion with husband and hearing information about LAPMs were found to have association with use of LAPMs.

Conclusion and recommendation: - The findings of this study showed that there was a gap between women who want to space/limit their child birth and utilize LAPMs. Even though the met need in the study area was greater than unmet need, it was not an indication of high utilization of LAPMs rather it indicates women has less demand for LAPMs for different reasons. Demand creation by Strengthening IEC campaign and disseminating correct and detailed information about LAPMs is a crucial to increase utilization of LAPMs.

1 INTRODUCTION

Family planning refers to a conscious effort by a couple to limit or space the number of children they have through the use of contraceptive methods. Contraceptive methods are methods which used to space or limit childbearing. Broadly they are categorized as traditional and modern methods[1, 2].

Modern methods are farther categorized as short acting and long acting contraceptive methods. Four contraceptive methods are categorized as long-acting and/or permanent (LAPM) methods these are: intrauterine devices (IUDs), implants, female sterilization and vasectomy. IUDs and implants are long-acting temporary methods, while female sterilization and vasectomy are permanent. When we compare LAPMs with short-acting contraceptive methods, they are convenient for users and effectively prevent pregnancy, cost-effective for programs over time, can result in substantial cost savings for governments, and contribute directly to reaching national and international health goals[3].

Today, the world is adding the largest numbers to its population than in any time in history. World population grows by about 83 million annually and now reaches 7 billion [4], [5]. This is roughly equivalent to adding the size of the Ethiopian population to the world annually, a rate of growth that will swell human numbers from today's (mid-2011) 6.99 billion to about 8.08 billion by 2025 and to 9.59 billion by 2050. Total fertility rate range from 0.9 children per woman in Taiwan and 7.0 in Niger. Ethiopia is the second most populous country in Africa with 4.8 TFR [1, 4, 6].

Because of the most rapid population growth, poverty has emerged as a serious global issue. About 48 % of world's population is living below $2 a day. In the Democratic Republic of the Congo 8 in 10 residents, In India 76 percent of the population live on less than US$2 per day[4]. In Ethiopia, 39 percent of its population

is living below the international poverty line of $1.25 a day. High population growth rates make it more difficult to lift large numbers of people out of poverty[5].

Every year approximately 350,000 women die while pregnant or giving birth. Of these women, 99 percent die in developing countries[7]. An estimated 8 million more suffer serious illnesses and lifelong disabilities as a result of complications at the time of childbirth[8]. As different literatures show that, Ethiopia is one of the countries with an unacceptably high maternal mortality, currently 676 per 100,000 live birth[1, 2].

In Ethiopia and other African countries, one major factor contributing to the challenge is the continued rapid growth of the population. High rates of population growth are largely the result of frequent childbearing or high fertility—often corresponding with a large unmet need for family planning[10].

There are currently 215 million women whose demand for modern methods of contraception is not being met. These 215 million women account for 82 percent of all unintended pregnancies, which often pose threats to the health and well-being of individual women and their families[11]. According to the latest data published in 2011 on contraception worldwide, the unmet need for family planning has remained at the same moderate to high level in most regions since 2000, but is highest in sub-Saharan Africa and the Caribbean[5]. Yet, only a small proportion of women in Africa who want to space or limit their pregnancies are using any form of family planning. Among those who are using contraception, most are using short-acting methods, such as oral contraceptives and injectables. Even though LAPMs are convenient for users and effectively prevent pregnancy and cost-effective for programs over time, they remain a relatively small, and sometimes missing, component of many national reproductive health and family planning programs[3].

2 LITERATURE REVIEW

2.1 Use of Long Acting and Permanent Methods (LAPMs)

Women and couples who want safe and effective protection against pregnancy would benefit from access to more contraceptive choices, including long-acting and permanent methods (LAPMs) [3].

In contrast to LAPMs, short acting methods require frequent, consistent and correct actions over time, and consequently have much higher failure rates. For example, in typical use, a hormonal implant is 60 times more effective than an injectable; an IUD, depending on type, is 10–40 times more effective than the pill; and a vasectomy is 100 times more effective than a male condom[12].

From a regional standpoint, LAPM use and modern method (MM) use among married women is: 27 percent and 61 percent in Asia; 35 percent and 69 percent in North America; 38 percent and 66 percent in South America; and 24 percent (with IUD use at 22 percent) and 54 percent in North Africa respectively[13].

Over time, the use of LAPMs has not kept pace with that of short-acting methods, such as oral contraceptives and injectables. Data from demographic and health surveys from four sub-Saharan countries (Ghana, Kenya, Senegal and Tanzania) show that the proportion of women currently using LAPMs is significantly lower than the proportion using short-acting methods. In each of the four countries, the use of LAPMs has either stagnated or declined over the past two decades. In many countries in the region, fewer than 5 percent of women who are using contraception are using an LAPM[14]. For example, in Ghana 2.8%, in Guinea 0.5%, in Nigeria 1.4%, in Senegal 1.6%, in Zambia 2.3%[12],in Ethiopia 2 % [1].

Secondary analyses of the most recent Demographic and Health Surveys from 12 sub-Saharan African countries show that, total demand and unmet need for contraception are substantial in many countries, for both birth spacers and limiters. One to two of every five married women in these countries have demand to delay or space a birth by at least two years. Yet in almost all the countries, the majority of

married women of reproductive age who have demand to space or delay a birth are not using any method[13].

A discrepancy exists between the proportion of women who wish to stop having children and the proportion who are using an LAPM. Data from demographic and health surveys conducted in sub-Saharan Africa between 2003 and 2005 show that more than 20 percent of women in nine of the 11 countries surveyed do not want any more children. A LAPM may be a good option for some of them, given their reproductive intentions, but they may not be using one because of lack of knowledge or access[3].

According to EDHS 2011 report, In Ethiopia 29 percent of currently married women are currently using a method of family planning, and nearly all use is a modern method. The most popular methods are injectables (used by 21 percent of currently married women), implants (3%), IUD (2%) and less than 1 percent of married women reported having been sterilized. Overall, 25 percent of currently married women have an unmet need for family planning (16 percent for spacing and 9 percent for limiting)[1].

As study done in Tehuledere woreda of south Wollo zone in Amhara Regional state shows 52% have undergone voluntary surgical contraception, followed by Norplant (39.0%) and IUD (8.7%)[15]. Research done in Mekele town indicates that the overall prevalence of LAPMs use was 12.3% however; there were no users for female or male sterilization. The majority of women used implants (87%) followed by IUCD (13%) while the prevalence of implants and IUD users was 10.6 and 1.5% respectively[16]. According to the research done in Hetosa Woreda area of the Arsi Zone in the Oromia administrative region indicates the most common FP method used was injectable (83.1%) followed by pills (17.7%). None of the women used long-term or permanent FP methods. About 73% of the FP users wanted to use long-term or permanent FP methods compared with 43% of the non-FP users (X^2 = 15.979, $P < 0.001$)[17].

2.2 Factors associated with demand for LAPMs

The reasons for women with unmet need do not use contraception, and the geographic areas in which certain types of reasons prevail, can inform the design of appropriate policies to reduce unmet need and allocation of limited resources to reduce the incidence of unwanted pregnancy. As different study shows women provided somewhat detailed reasons for nonuse, and these can be grouped into three categories: reasons that indicate the woman perceives she is at low risk of getting pregnant (exposure related reasons); availability of contraceptive supplies and services, women's knowledge of FP, access to contraceptives or concerns about the health or side effects of contraception (supply of methods and services); and opposition to FP, either on the woman's part or on the part of her husband or other influential person including opposition on religious grounds (demand side reasons)[18].

Overall, more than 60% of married women with unmet need in the North Africa and west Asia region, nearly half of women in the Latin America region and more than a third of women in South and Southeast Asia and SSA indicated they were not using contraceptives because they did not believe they were at risk of getting pregnant[19].

The use of any family planning method depends on the person's knowledge of the different family planning methods available and the willingness of both spouses to participate in the family planning program. As study done in Ghana (Dunkwa-on-Offin town) indicates LAPMs were the least known and less popular methods. The use of permanent family planning methods, such as vasectomy for men and tubal ligation for women, was very limited among the participants[20]. According to EDHS 2005 report, LAPMs were less known (Male sterilization 5.5%, IUD 12.2%, Female sterilization 17.2%, Implant 20.0%) when we camper with short-acting (condom 40.6%, injectable 82.6%, pills 84.2%) contraception[18]. According to the research done in Mekele town shows that 63.9% had heard about LAPMs in general, out of

this, 80.7%, 55.3% and 39.8% had heard about implants, IUD and female sterilization, respectively. Only 15.6% of the married women heard about vasectomy and 23.8% named more than two contraceptive[16].

Limited access to LAPMs remains a problem in Sub-Sahara Africa. Short-acting methods are becoming increasingly available through commercial outlets and community-based distribution, especially in rural areas where most people live. However, the provision of LAPMs is often confined to urban facilities. Distance to clinics and fees for services can make it difficult to obtain services. Provider knowledge and skills is other important thing to provide LAPMs[21]. Even when trained providers are available, they may not provide LAPMs to their clients because of unnecessary or outdated restrictions, such as age or the number of children a woman has, or they may not offer comprehensive information about all methods during counseling, which limits the ability of a client to make an informed contraceptive choice[3].

In a study conducted in the Dembia district, Northwest Ethiopia, only a third of women reported that healthcare providers had informed them of FP choices and only 11.5% of 165 women received information regarding possible side-effects[22]. A limited choice of FP methods was also reported in Jimma[23]. About 21% of the women were limited to methods that they did not want to use, indicating a high likelihood of discontinuation because of inconvenience[17]. In view of women's right to benefit from more contraceptive choices, including long-acting or permanent methods, the evidence suggests that comprehensive information regarding long-acting or permanent FP methods should be provided. Current users of modern methods who are well informed about the side effects and problems associated with methods and know of a range of method options are in a better position to make an informed choice about the method they would like to use[18].

As study done in Uganda shows many women have misconception about how provider can try to look at their private parts. Since IUD being put in the uterus and

staying in there for a long time, they fear that it will cause other diseases in the uterus like cancer and that during sex, the man can easily feel it [24]. Study done in Ghana also shows there is a misconception among many men and women that once a man has had a vasectomy, it is impossible for him to have an erection[20].

Concealment of use of contraception is an indication of absence of communication or disagreement on use of family planning. Study done in Africa shows women who reported frequent discussion of family planning with their partners were more likely to be using contraception than were women who reported they never discussed family planning[17]. Uneducated women are three times more likely to conceal the use of method of family planning as compared women with secondary or higher levels of education. Concealment of use is also higher among women in the two lowest wealth quintiles and among those residing in rural areas[18]. Study done in Jimma on Awareness and determinants of family planning practice also shows that use of FP methods by women who had discussed FP with their husbands was three times higher than that of women who had not discussed FP with their husbands[25] and women who received FP counseling with their husbands were twice as likely to adopt modern FP methods than their counterparts (33% vs. 17%[26];

Contraceptive use differs significantly across educational categories. According to EDHS 2005 report, Current use increases five-fold from 10% among women with no education to 53% among those with secondary and higher levels of education. As the educational status of women increased, there was a corresponding increase in the use of contraceptive methods. As study done in northeast Ethiopia shows women who had a primary education were about 1.4 times more likely to use contraceptives than those women with no modern education (OR=1.38, 95%CI: 1.04, 1.82). Similarly, women who had at least a high school education were nearly two times more likely to use contraceptives when compared with the same reference category of women with no modern education (OR=1.87, 95%CI: 1.33, 2.62)[27].

Wealth has a positive effect on women's contraceptive use, with use increasing markedly as wealth increases, from 4 percent among married women in the lowest wealth quintile to 37 percent among those in the highest wealth quintile[18].

As study done in the East African countries showed that women with no children were less likely to use modern contraception than were women with 3 or 4 children. Women who reported being exposed to family planning information in the media were more likely to be using contraception[28]. The association between modern contraceptive use and religion was weak and only significant in 2 countries. In Malawi, Muslims were less likely to use modern contraception than were Catholics; in Ivory Coast, Protestants were significantly less likely to use modern contraception than were Catholics[28].

The age pattern of first use of contraception shows that younger women are more likely to start using contraception at lower parities than older women. In Kenya, Malawi, and Tanzania, women aged 40 to 49 years were significantly less likely to be using contraception than women aged 30 to 39 years[28]. For example, most women below age 30 started using contraception after they had one child, suggesting the intention of younger women to space births at earlier parities than older women[18]. As study done in Tehuledere woreda, Amhara Regional State shows almost 81% of the clients using long-term and permanent methods were in the age group of 25-44 years[15].

3 JUSTIFICATION OF THE STUDY

All individuals and couples have a basic human right to decide freely and responsibly the number of their children. Fulfilling this right is an important intervention for improving maternal and child health and the overall well-being of entire families. Yet, only a small proportion of women in African region, including Ethiopia who want to space or limit their pregnancies are using any form of family planning. Among those who are using contraception, most are using short-acting methods, such as oral contraceptives and injectables.

Women and couples who want safe and effective protection against pregnancy would benefit from access to contraceptive choices, including long-acting and permanent methods (LAPMs). Even though LAPMs have many advantages than short- acting methods, the use of LAPMs has not kept pace with that of short-acting methods. Experience globally as well as in Sub-Saharan Africa confirms that without widespread availability and use of long-acting and permanent methods of contraception, a country cannot cost-effectively meet its higher Contraceptive prevalence rate (CPR) goals. Thus, in order to increase the utilization of LAPMs, assessing women's demand for LAPMs and identifying associated factors is important.

As far as my knowledge is concerned there is limited evidence in Ethiopia and no study conducted on this issue in the study area. Therefore, the finding of this study will help policymakers, planners and other concerned bodies to intervene the problem accordingly.

4 OBJECTIVES OF THE STUDY

4.1 General Objective

- To assess demand for long acting and permanent contraceptive methods and associated factors among currently married women in Fitche Town, North Showa Zone, Oromia Regional state, Ethiopia.

4.2 Specific Objectives

- To determine met need for long acting and permanent contraceptive methods among married women in Fitche Town.
- To determine unmet need for long acting and permanent contraceptive methods among married women in fitche town.
- To identify the associated factors of not using long acting and permanent contraceptive methods among married women in Fitche Town.

5 METHODS

5.1 Study design

Community based cross-sectional quantitative study design was used to assess demand and associated factors of long acting and permanent contraceptive methods among married women in Fitche town, north showa zone, Oromia regional state, Ethiopia.

5.2 Study area and study period

The study was conducted in fitche town starting from April 10, 2011 to April 30, 2012. Fitche town is one of towns found in central Ethiopia and administrative center of the north showa zone of Oromia region. Fitche town is situated about 2600-2800 meters above sea level, 112 km far to the north from Addis Ababa-on the Addis Ababa Gojam road and has a *Dega* climate. According to the master plan of the town which was prepared in 1988, Fitche has 17.62 km^2 of a reserved total area from which about 433 hectares of land actually urbanized[29]. Fitche town has 4 kebeles and based on figures from the Central Statistical Agency (CSA) in 2005, about 37,861 total populations of whom 18,446 are male and 19,415 female with the average growth rate of 4.0 %. The estimated number of households in the town is about 8497.

There are 9 health facilities in the town. These are one zonal hospital, two health centers, one health post and five privet clinics.

5.3 Source of population

All women those who are in reproductive age group, currently married and residents of Fitche Town were taken as source population.

5.4 Study population

Women those who are in reproductive age group, currently married, residents of Fitche Town live in selected cluster and fulfill the inclusion criteria was taken as study population.

5.5 Inclusion and exclusion criteria

5.5.1 Inclusion criteria

All currently married women of reproductive age group those who residing in selected cluster was included.

5.5.2 Exclusion criteria

Mothers who were mentally or physically sick and cannot give response to the interview.

5.6 Study Variables

5.6.1 Dependent/response variable

- ⇨ Use of LAPMs

5.6.2 Independent/explanatory variables

- ❖ **Socio- economical and demographic characteristics:**
  - ⇨ Age, Occupation status, Educational level, Ethnicity, Religion, Number of living children, Desire for another child, Family income
- ❖ **Accessibility factors:**
  - ⇨ Source of methods, Choice of method, Source of information, Distance from health facility
- ❖ **Others factors:**
  - ⇨ Knowledge about LAPMs, Discussion with Husband, Myths and misconceptions

5.7 Operational definitions

- **Long acting contraceptive method:** IUDs and Norplant are categorized as long acting contraceptive methods.
- **Permanent contraceptive methods**: Female sterilization or tubal-ligation, and vasectomy are permanent methods.
- **Demand for LAPMs** determined by adding the percentage of women who are using LAPMs and percentage of women who were not using LAPMs but

wanted to use LAPMs. ➔ ***Met need for LAPMs plus unmet need for LAPMs.***

- **Unmet need for limiting** –when women who do not want any more children, want to use LAPM and fecund but not using any of LAPM.
- **Unmet need for spacing**- when women who do not want to have pregnancy soon after delivery or want to delay for certain time and intend to use LAPM but not using any of LAPM.
- **Unmet need for long acting contraceptives**-when women who want to delay or avoid pregnancy do not use Norplant or IUD.
- **Unmet need for permanent method**- when women who want to have Female sterilization/tubal-ligation but not have tubal- ligation.
- **Satisfied Demand for LAPMs –** determined by dividing percentage of women who were using LAPMs by total demand.
- **General knowledge of LAPMs -** if the interviewed woman can call at least the name of one LAPM.

5.8 Sample size & sampling procedures

5.8.1 Sample size determination

Sample size was determined by using sample size determination for single population proportion.

$$n = (Z_{\alpha/2})^2 \frac{P(1-P)}{d^2}$$

Where:

n = number of the study subjects/sample size/

Z = is standardized normal distribution curve /value for the 95% CI (1.96)

p = estimated proportion of Demand for long acting and permanent contraceptive methods in the population. 50% will be taken since there is no previous study done specific to the topic in the area and other similar areas as my search is concerned.

d = the margin of error will be taken (0.05 taken).

By using a single proportion formula the calculated sample size was 385. Since the cluster sampling technique was used by considering design effects the final sample size was 2x385=770. Since the total population is less than 10,000, by using the correction formula the sample size was: $n_f = n/1+n/N = 770/1+770/8497 = 705.77=706$ by considering 5% non response rate the final minimum sample size became 742.

5.8.2 Sampling procedure

Fitche town has 4 kebeles, 32 *Gotes* and 156 Gare *Misoma/Yelimat Budin. Gare Misoma* was used as cluster. Each *Gare Misoma* has 30 household except Kebele 4 which each Gare Misoma has around 90 households. After getting the number and name of *Gare Misoma* from each Kebele, the ***Gare Misoma*** was listed together and simple random sampling technique-lottery method was used to select the number of clusters involved in the study. First, by assuming that married women present in all households, ***21 clusters*** were selected from the listed cluster by lottery method which was 4 clusters, 8 clusters, 7 clusters and 2 clusters from Kebele 1, Kebele 2, Kebele 3 and Kebele 4 respectively. After collecting the data from the selected clusters to reach the sample size again ***7 clusters*** were selected without replacement of the first selected clusters and 2 clusters, 4 clusters and 1 cluster selected which was from Kebele 1, Kebele 3 and Kebele 4 respectively. All households in the selected clusters were visited and married mother who lives in the household was interviewed by using structured questionnaires.

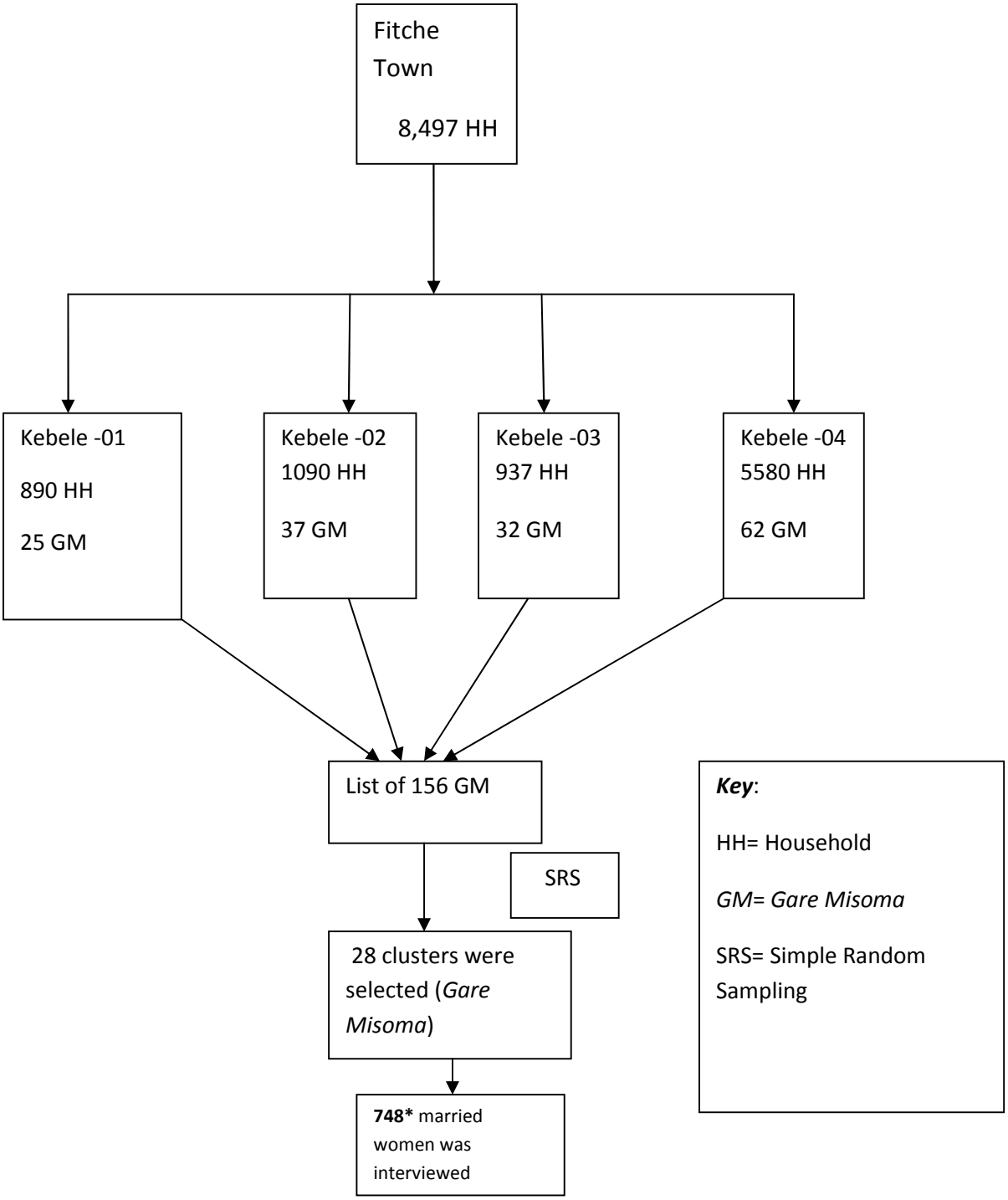


Figure 1: Schematic presentation of sampling procedure

***NB**: ***all women those full filled the inclusion criteria and found in selected cluster were included.*

5.9 Data collection procedures (instrument, personnel, data quality control)

5.9.1 Data collection instrument

Structured Questionnaires was prepared and used to interview the mother who lives in selected household in Fitche town.

5.9.2 Personnel (data collectors)

To collect the data four data collectors 3 female and 1 male from Fitche collage of Health Science those have previous exposure in data collection and one supervisor (BSC in nursing) from Fitche Hospital were used.

5.9.3 Data Quality control

Questionnaire was translated from English to local language Afan Oromo and back to English as well to reconfirm consistency. It was pre-tested on 37 women (5% of the sample size) and amended based on the study objectives. Data collectors trained for one day to be familiar with the objective and the methodology of the research and standardize their interviewing technique and ask question in respectful and consistent manner. The collected data was checked for the completeness, accuracy and clarity by the Supervisors and Principal Investigator. The principal investigator was closely supervising the performance of the data collectors in the field on a daily basis.

5.10 Data processing and analysis

SPSS version 16 was used for data entry and analysis. Descriptive statistics such as Frequencies and percentage of different variables was computed as appropriate. Odds ratio with 95% confidence interval was used to assess the presence and degree of association between the dependent and independent variables; both Bivariate and multivariate logistic regression were done for better prediction of associated factors and to reduce bias due to confounders.

6 ETHICAL CONSIDERATION

Ethical clearance was obtained from University of Gondar, collage of medicine and Health science, Institute of Public Health ethical Review committee. Permission for conducting the study was secured from the Oromia regional health bureau. Then official letter was written to Fitche town administration and health offices. Consent was obtained from all the study participants after they were briefly informed about the objectives and the aim of the research. Confidentiality was maintained at all levels of the study by not writing the respondent's name on the questionnaire, by not sharing the information we got from the respondents and by using the information only for the purpose of the study. Participant's involvement in the study was on voluntary basis; participants were informed that they can refuse to respond to the question and quit the interview at any stage of the interview without any restriction. All sample populations were encouraged to participate in the study while at the same time they were told their right not to participate.

7 RESULTS

7.1 Socio demographic characteristics of the study subjects

A total of 746 married women were included in the study. The overall response rate was 99.7% which was 746 out of 748 study participants. Majority of the respondents were in the age group 25-29 years followed by age group 30-34 and 20-24 which was 221(29.6%), 145(19.4%), and 132(17.7%) respectively. The mean age of the study participants was 30 with 7 SD and the median age 29 years. From the total study participants, 399(53.5%) respondents had formal education, 44(5.9) had informal education and 303(40.6) had no education. The occupation of the major respondents were house wife 423(56.7) followed by government employee 136(18.2%) and merchant 119(16%). The ethnicity of the respondents were Oromo 370(49.6%) followed by Amhara 320(42.9%). The majority of respondent's religion was Orthodox 665(89.1%) followed by protestant 67(9%). Monthly family incomes of the respondents (65.1%) were reported as below 638 Ethiopian Birr and only 15% report as ≥1020 Birr (Table 1).

Table 1: Socio-Demographic characteristics of currently married women in Fitche town, North showa zone, 2012.

Variables	Response	Number n=746	Percent
Age of Respondent	15-19	40	5.4
	20-24	132	17.7
	25-29	221	29.6
	30-34	145	19.4
	35-39	110	14.7
	40-44	58	7.8
	45-49	40	5.4
Educational Status	No Education	303	40.6
	Able to Read and write	44	5.8
	Elementary school	158	21.2
	High School	122	16.4
	Collage /University	119	16.0
Occupation	House wife	423	56.7
	Gov. employee	136	18.2
	Merchant	119	16.0
	Daily laborer	37	5.0
	Student	27	3.6
	Private Employee	4	0.5
Ethnicity	Oromo	370	49.6
	Amhara	320	42.9
	Tegrie	17	2.3
	Gurage	32	4.3
	Other[1]	7	0.9
Religion	Orthodox	665	89.1
	Protestant	67	9.0
	Muslim	8	1.1
	Others[2]	6	0.8
Monthly family income*			
	Less than 638 Ethio.Birr	486	65.1
	638-1020 Ethio.Birr	148	19.9
	≥1020 Ethio.Birr	112	15

* *Classified based on world bank poverty line report*

[1] Somale, Walayita, and Sidama

[2] Jova witness and catholic

From the total study participants, 471(63.1%) of respondents were married at the age of <18. Median age of the respondents at marriage was 18 years while the mean was 17.8 years with standard deviation of 3.9 years. Seven years were the minimum age at first marriage of the respondent while 28 years the maximum value. From the total of 746 participants, 39.4% respondents had 1-2 pregnancies followed by 3-4 pregnancies (33%) while the mean was 3.36 with standard deviation (SD) of 2.39. Three hundred twenty two (43.2%) had 1-2 alive children while 14.6% had 5 and above children. The mean number of living children was 2.83 with standard deviation of 1.94. From the total study participants**,** 385 (51.6%) respondents were not desire any more children (Table 2).

Table 2: Percentage distribution of age at first marriage, number of pregnancy, number of alive children and desired number of children in Fitche Town, North showa zone, 2012.

Variables	Response	Number N=746	Percent
Age at first marriage	<18	471	63.1
	≥18	275	36.9
Number of pregnancy	Zero	37	5.0
	1-2	294	39.4
	3-4	246	33.0
	5 and above	169	22.6
Number of alive children	No child	43	5.8
	1-2	322	43.2
	3-4	272	36.4
	5 and above	109	14.6
Desired number of children	Not any more	385	51.6
	1-2	259	34.7
	3-4	67	9.0
	5 and above	1	0.1
	As God give me	34	4.6

7.2 Knowledge and Information about LAPMs

From the total of the respondent, 71% of the respondent heard at least about one of LAPMs and majority of the respondents (70.4%) heard Implant. Television was mentioned as the main source information by majority of the respondents (59.9%) followed by HEWs (29.1%). Majority of the respondents (95.8%) can name at least one of modern contraceptive. Short acting methods were the most known (Pills 92.4%, injectables 91.6% ,Male condom 9.9% and Female condom was the least known 2.1%), and LAPMs relatively less known (implant, IUD, Female sterilization and male sterilization 50.8%, 34%, 4.7% and 1.9% respectively. Six hundred thirteen (82.2%) of the respondents knew the source of family planning methods (Table 3).

Table 3: Percentage distribution of Ever heard LAPMs, knowledge of sources and source of information of LAPMs for respondents in Fitche town, north showa zone, 2012.

Variables	Responses	Number n=746	Percent
Ever heard at least about one of LAPMs	Yes	530	71.0
	No	216	29.0
Methods heard About	Implant	525	70.4
	IUD	447	59.9
	Female sterilization	84	11.3
	Male sterilization	27	3.6
Source of information	Television	442	59.2
	Radio	134	18
	HEWs	217	29.1
	Friends/ Neighbors	130	17.4
General Knowledge of any contraceptive methods	Yes	715	95.8
	No	31	4.2
Method known	Pills	689	92.4
	Injectables	683	91.6
	Male condoms	74	9.9
	Female condoms	16	2.1
	Implant	379	50.8
	IUD	254	34
	Female sterilization	35	4.7
	Male sterilization	14	1.9
	Others	16	2.1
Know source of methods	Yes	613	82.2
	No	133	17.8
Known source of methods (n=613)	Government Hospital	573	93.5
	Government Health center	375	61.2
	Private Hospitals/clinics	28	4.6
	Health posts	21	3.4

Of 746 respondents, 87.9% of them had at least one history of different health facility visits for different reasons in the last 12 months but only 23.8% of them got information about LAPMs from health care providers. Of the respondent those who got information about LAPMs during the visit were went to take family planning methods (23.2%). Those respondents visited health facility for other reasons didn't get any information about LAPMs. The majority of the respondents (80.8%) were report that they were visited at least one time by HEWs at home in the last 12 months but 36% of them report as informed about LAPMs by HEWs during home visit(Table 4).

Table 4: Percentage distribution of health facility visited, reasons of visit, discussion about LAPMs during visit with health care provider, home visit of HEWs and discussion with respondent in the last 12 months in Fitche town north showa zone, 2012.

Variables	Response	Number	Percent
Health facility visit (n=746)	Yes	656	87.9
	No	90	12.1
Health facility visited(n=656)	Government Hospital	295	44.9
	Health center	403	61.4
	Private Hospital/ clinic	17	2.6
	Health post	1	0.1
Reason for health facility visit (n=656)	Respondent Illness	242	36.9
	Child illness	167	25.5
	To take FP Method	152	23.2
	Immunization	67	10.2
	ANC follow up	23	3.5
	Others	5	0.7
Got information about LAPMs from service provider (n=656)	Yes	165	23.8
	No	461	70.2
Home visit by HEWs in the last 12 months(n=746)	Yes	603	80.8
	No	143	19.2
Discussed about LAPMs during home visit(n= 603)	Yes	217	36.0
	No	386	64.0

Of the total 746 study participants, 248(33.2%) respondents discussed to space and/or to limit their birth and use LAPMs with their husband and 219(88.3%) of the respondents responded that their husband approves using LAPMs. Four hundred ninety eight (66.8%) of the respondent didn't discuss about use of LAPMs with their husband. From those respondents had discussed about use of LAPMs most of them (82.2%) decided both partners together (Table 5).

Table 5: Percentage distribution of discussion with husband about LAPMs use, husband attitude on discussion and main decider on the use of LAPMs in Fitche town, North showa zone, 2012.

Variables	Responses	Number	Percent
Discussion with husband (n=746)	Yes	248	33.2
	No	498	66.8
Husband attitude on discussion (n= 248)	Approves	219	88.3
	Oppose	9	3.6
	Don't know	20	8.1
Decision about the use of methods (n=248)	Self decision	20	8.1
	Husband decision	24	9.7
	Both decide together	204	82.2

7.3 Utilization of LAPMs of contraceptives

From the total study participants, 345(46.2%) respondents were ever used family planning methods. From this, 86 (24.9%) of the respondents had ever used LAPMs (IUD 15(4.3%), Implant 64(18.6%) and tuba ligation 7(2%)). Short acting methods were the most ever used in the town which was Pills 50(14.5%), injectables 264(76.5%) and Natural methods 4(1.2%).

From the total study participants, 291(39%) respondents were using family planning methods. From the users, 84 (28.9%), 203(69.7%) and 4(1.4%) were using LAPMs, short acting and natural methods respectively (Figure 2). Among LAPMs users, 66(78.6%) was got the services from government hospital while 17(20.2%) from government health center and 1(1.2%) from private health facility.

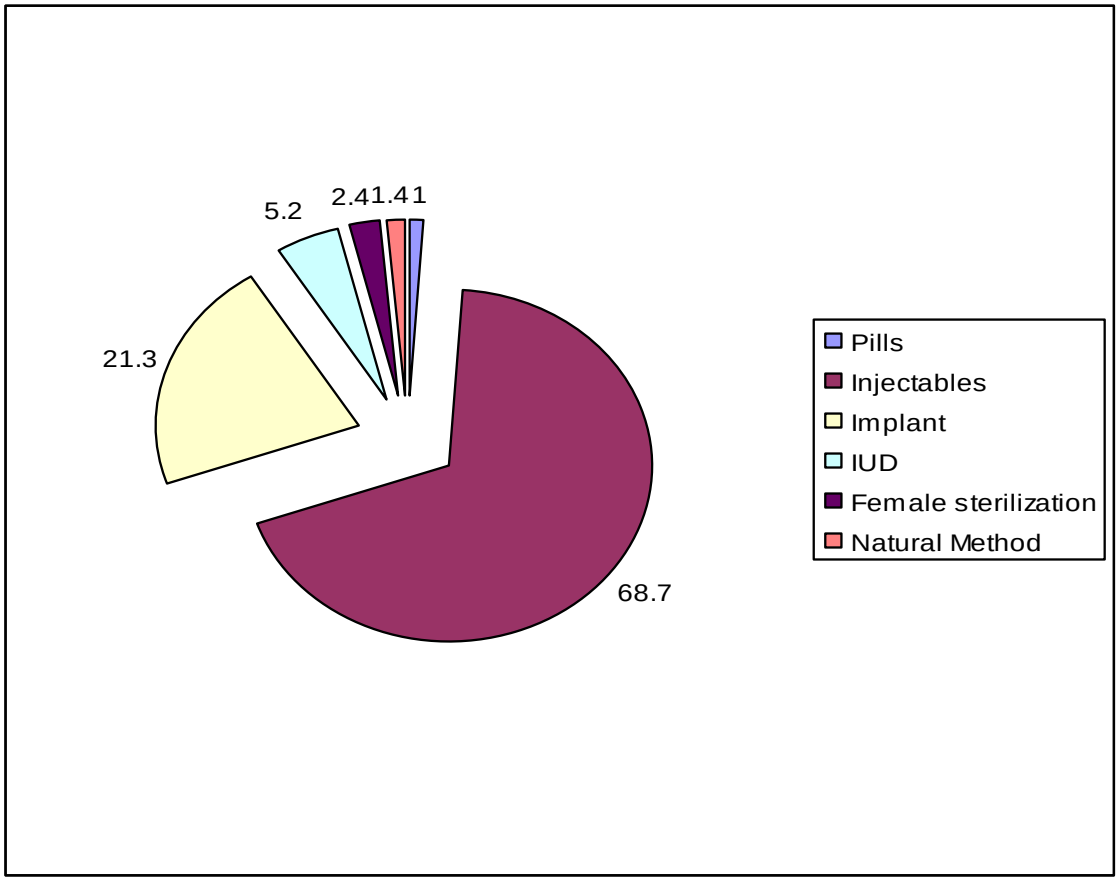


Figure 2: Pie chart shows Family planning method used in Fitche town, north showa zone, Central Ethiopia, 2012.

The utilization of LAPMs of contraceptives varies with change in the age group of respondents. The highest number of use was observed in the age group 25-29years followed by age group 35-39 years (Figure 3).

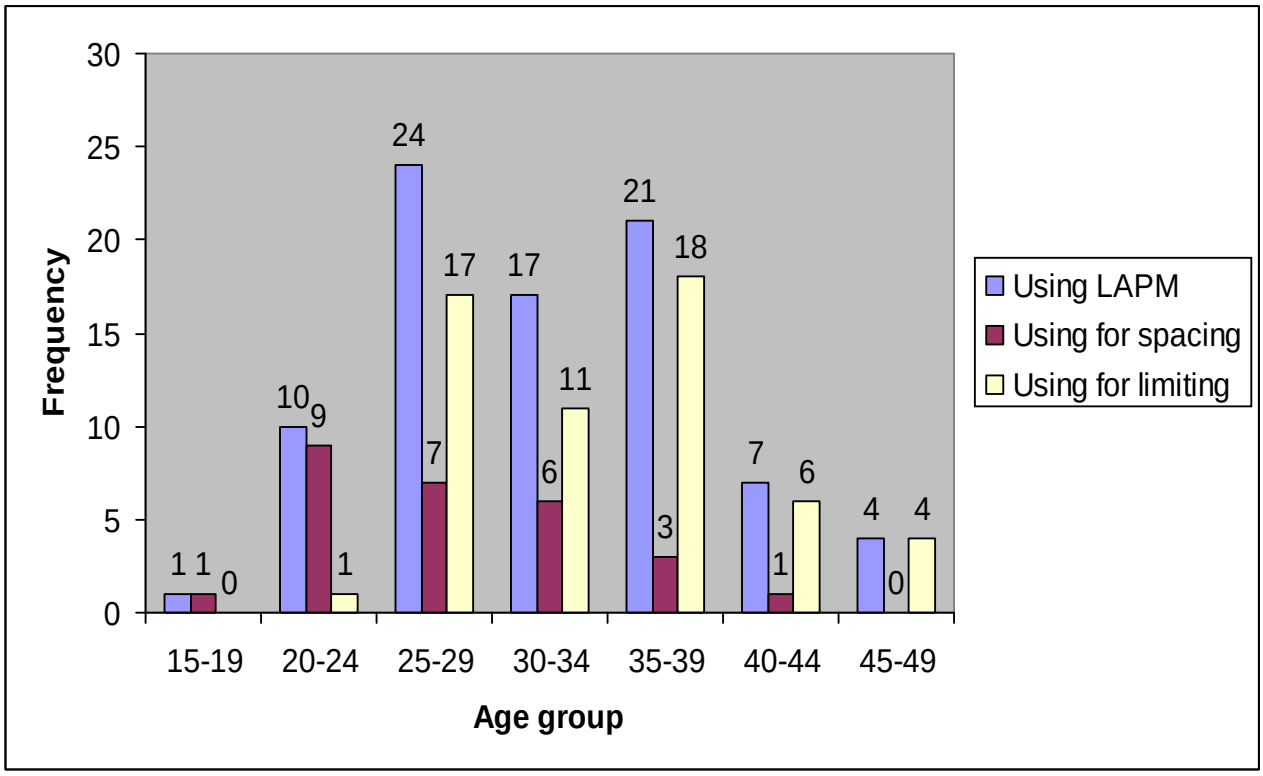


Figure 3: Users of LAPMs by age group in Fitche Town, North showa zone, Central Ethiopia, 2012.

7.4 Unmet Need and Demand for LAPMs of Contraceptives

The total demand for LAPMs of contraceptives in the Fitche town was found to be 149(20%) where the unmet need for LAPMs of contraceptives was 65(8.7%), 14(1.9%) for spacing and 51(6.8%) for limiting while met need was 84(11.3%), 27(3.62%) for spacing and 57(7.64%) for limiting. Five (0.7%) respondents who were pregnant at the time of the study had past unmet need as they have unintended current pregnancy of which 2(0.3%) want LAPMs for spacing and 3 (0.4%) for limiting. From Non pregnant women those not using LAPMs 12(1.6%) of them wanted LAPMs for spacing while 48(6.4%) for limiting but not used (Figure 4).

Different reasons were mentioned by respondents for not using the LAPMs of contraceptives. Thirty nine point nine percent (39.9%), 24.5%, 20.7% and 14.2% of the respondent were not using LAPMs due to method related reasons, fertility related reasons, lack of knowledge and opposition to use respectively.

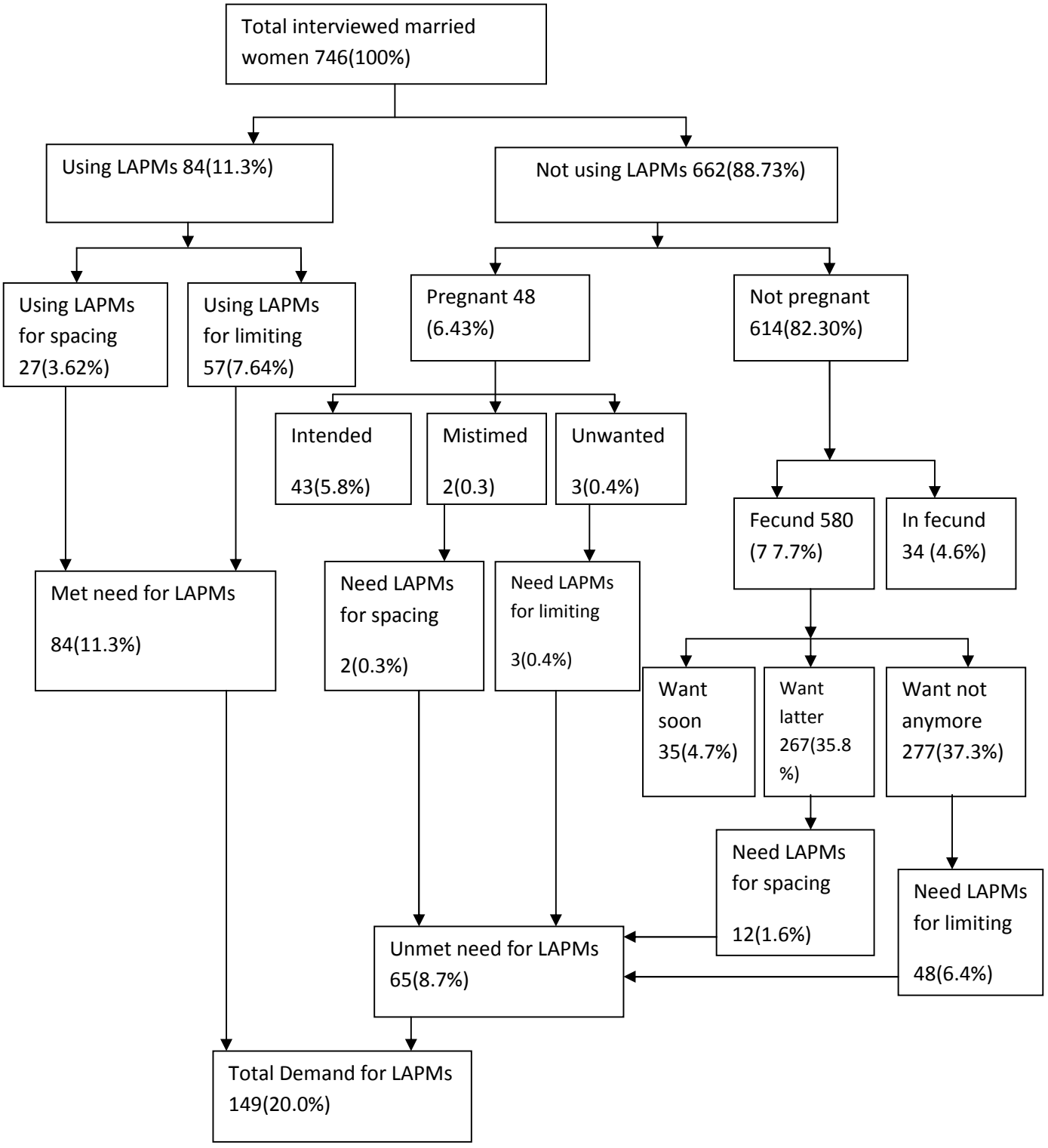


Figure 4: Schematic Presentation of Unmet Need and Demand for LAPMs among Married Women in Fitche Town, North Showa Zone, 2012.

Unmet need for LAPMs of contraceptives varies with change in the age group of respondents. The highest number of unmet need was observed in the age group 25-29 years followed by age group 30-34 years (Figure 5).

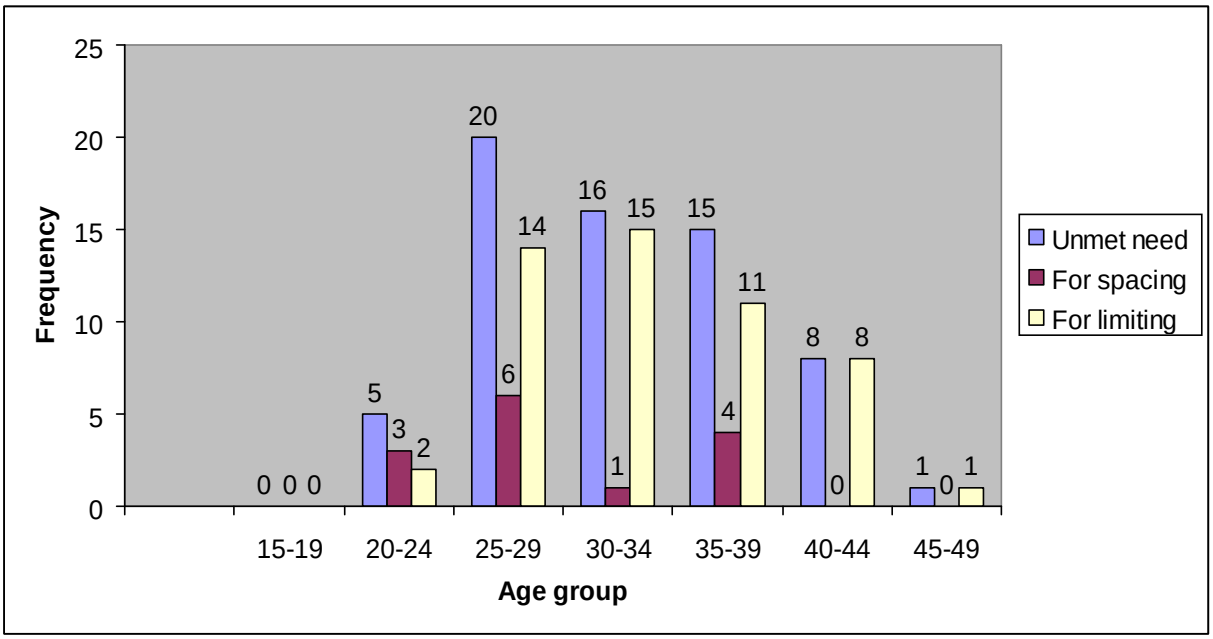


Figure 5: Unmet need of LAPMs by age group in Fitche Town, North showa zone, Ethiopia, 2012.

7.5 Intention to Use LAPMs Contraceptive Methods in Future

All participants were asked about intention to use LAPMs in the future to space or limit their child births. From the total participant, 332 (44.5%) respondents were intended to use LAPMs in the future. Among them 84(25.3%) were currently using LAPMs while 248(74.7%) were not using LAPMs during the survey. Majority of the respondent 215(64.8%) were intended to use implant. More than half of the respondents 414(55.5%) did not intend to use LAPMs of contraceptives. The main reason mentioned for not intending to use was lack of awareness about the methods 123(29.7%) and method related reasons 121(29.2%). Eighty three (98.8%) of the respondents using LAPMs obtain service free of charge. Ninety four percent of the users were convenient for a given service. Long waiting time was the main mentioned reason 3(60%) for inconveniency of service delivery point (Table 6)

Table 6: Percentage distribution of intention to use LAPMs in the future, methods intended to use and reason for not intending of married women in Fitche town, North showa zone, 2012.

Variables	Response	Number	Percent
Intention to use LAPMs(n=746)	Yes	332	44.5
	No	414	55.5
Method intended to use (n=332)	Implant	215	64.8
	IUD	96	28.9
	Female sterilization	21	6.3
Reason for not intending(n=414)	**Fertility Related Reasons**	**80**	**19.3**
	Not have sex	5	1.2
	Infrequent sex	12	2.9
	Want many children	32	7.7
	In fecund	34	8.2
	Opposition to Use	**87**	**21.0**
	Respondent opposition	70	16.9
	Husband opposition	18	4.3
	Religious prohibition	1	0.2
	Lack of Knowledge	**123**	**29.7**
	Knows no method	123	29.7
	Method Related Reasons	**121**	**29.2**
	Health concerns	5	1.2
	Fear of side effect	64	15.5
	Prefer short term	54	13.0
	Others	**3**	0.**7**
Payment for service (n=84)	Free of payment	83	98.8
	With payment	1	1.2
Convenient of service area(n=84)	Yes	79	94.0
	No	5	6.0
Reason for incontinency(n=5)	Behavior of providers	2	40.0
	Long waiting time	3	60.0

NB: *since one respondent can mention more than one reason the summation may not hundred*.

Table 7 : Percentage distribution of currently married women intended to use LAPMs in the future according to their age group, educational status and number of living children in Fitche town, North showa Zone, Ethiopia, 2012.

Variables	Intended to use LAPMs		Not intended to use		Number of women
	Number	Percent	Number	Percent	
Age					
15-19	13	32.5	27	67.5	40
20-24	60	45.5	72	54.5	132
25-29	109	**49.3**	112	50.7	221
30-34	67	46.2	78	53.8	145
35-39	54	**49.1**	56	50.9	110
40-44	20	34.5	38	65.5	58
45-49	9	22.5	31	77.5	40
Total	332	44.5	414	55.5	746
Number of living children					
No child	20	46.5	23	53.5	43
1-2	164	**50.9**	158	49.1	322
3-4	112	41.2	160	58.8	272
5^{+}	36	33.0	73	67.0	109
Total	332	44.5	414	55.5	746
Educational status					
Illiterate	74	24.4	229	75.6	303
Able to read and Write	17	38.6	27	61.4	44
Elementary	60	38.0	98	62.0	158
High school and above	181	**75.1**	60	24.9	241
Total	332	44.5	414	55.5	746

7.6 Myth and Misconceptions about LAPMs

From the total participants, 74(9.9%) of respondents heard different misconceptions about LAPMs. Of the total heard misconception about LAPMs 63(85.1%) heard about implant while 11(14.9%) heard about IUD. Some respondent said that implant blocks blood vessels and protect blood circulation and those women who use implant loss their weight, and also cause hand paralysis and interfere her daily activities. Some respondent heard about IUD said that it cause bad smell of uterus, uterus diseases (uterus cancer) and go out when the women caring heavy materials.

7.7 Factors associated with Use of LAPMs

Both bivariate and multivariate logistic regression was used to assess the factors associated with utilization of LAPMs. Socio demographic factors like age, religion, occupation, educational status, number of children alive, desired number of children, age at first marriage, family income and other factors such as general knowledge of LAPMs, knowledge of sources of LAPMs, distance from nearby health facility, myth and misconception about LAPMs, and discussion with husband were assessed for the presence of association with utilization of LAPMs. The result of multivariate analysis showed that, desired number of children, discussion with husband and hearing information about LAPMs were found to have association with use of LAPMs.

Women who not desired any more children had 3.15 times more likely to use LAPMs as compared with those who wanted one and above children (AOR=3.15, 95%CI: 1.88, 5.27). Those women who did discuss about family planning and use of LAPMs with their husband had 5.19 times more likely to use LAPMs as compared with those women who had not discussed with their husband (AOR=5.19, 95%CI:2.86, 8.42). Those women those who heard about LAPMs were 5.19 times more likely to use LAPMs than those not heard about LAPMs (AOR= 5.19, 95%CI: 1.78, 15.16) (Table 8).

Table 8: Shows the Association between socio-demographic characteristics, reproductive history of the participants, knowledge and use of LAPMs Fitche town, 2012.

Variables	Using LAPMs		COR (95%CI)	AOR (95%CI)
Age	**Yes (%)**	**No (%)**		
15-24	11(6.4)	161(93.6)	1.00	
25-34	41(11.2)	325(88.8)	1.85(0.92, 3.69)	
35-49	32(15.4)	176(84.6)	2.66(1.29, 5.45)	
Occupation				
House wife	26(6.1)	397(93.9)	1.00	
Merchant	19(16.0)	100(84.0)	2.90(1.54, 5.45)*	
Government employee	33(24.3)	103(75.7)	4.89(2.80, 8.55)	
All Others	6(8.8)	62(91.2)	1.48(0.59, 3.74)	
Educational status				
No education	12(4.0)	291(96.0)	1.00	
Able to read and write	4(9.1)	40(90.9)	2.42(0.75, 7.88)	
Elementary school	15(9.5)	143(90.5)	2.54(1.16, 5.58)	
High school and above	53(22.0)	188(78.0)	6.83(3.56, 13.13)	
Monthly family income				
Less than 638 Birr	38(7.8)	448(92.2)	1.00	
638-1020 Birr	22(14.9)	126(85.1)	2.06(1.18, 3.61)	
Grater 1020 Birr	24(21.4)	88(78.6)	3.22(1.84, 5.63)	
Age at first marriage				
<18	35(7.4)	436(92.6)	1.00	
≥18	49(17.8)	226(82.2)	2.70(1.70, 4.29)*	
Desired number of children				
Not any more	57(14.8)	328(85.2)	2.15(1.33, 3.48)*	3.15(1.88, 5.27)*
One and above	27(7.5)	334(92.5)	1.00	1.00
Heard about LAPMs				
Yes	80(15.1)	450(84.9)	9.42(3.41, 26.06)*	5.19(1.78, 15.16)*
No	4(1.9)	212(98.1)	1.00	1.00
Has General knowledge of LAPMs				
Yes	69(18.2)	311(81.8)	5.19(2.91, 9.26)*	
No	15(4.1)	351(95.9)	1.00	
Discussion with husband				
Yes	60(24.2)	188(75.8)	6.30(3.81, 10.42)	5.19(2.86, 8.42)*
No	24(4.8)	474(95.2)	1.00	1.00
Know sources of LAPMs				
Yes	80(13.1)	533(86.9)	4.84(1.74, 13.46)*	
No	4(3.0)	129(97.0)	1.00	

*Indicates those has significant association with use of LAPM (P<0.05).

7.8 Factors associated with unmet need of LAPMs

The result of bivariate analysis showed that age, educational status, getting information about LAPMs, number of pregnancy, number of children alive, and desired number of children and knowledge of source of methods had significant association with unmet need for LAPM. Women those in the age group of 25-34 years were 3.6 times (OR= 3.64, 95%CI: 1.40, 9.46) and those in the age group of 35-49 years were 4.4 times(OR=4.36, 95%CI: 1.63, 11.68) more likely to have had unmet need for LAPMs as compared with those married women in the age group 15-24 years. Women who had high school and above level education were 51% less likely to have had unmet need for LAPMs as compared with those no education (OR=0.49, 95%CI: 0.26, 0.93). Mothers those who had ≥ 2 children were around 3 times more likely to have had unmet need for LAPMs as compared with those mothers who had < 2 children (OR= *2.89, 95%CI: 1.59, 5.24).* Married women those who heard about LAPMs were 46% times less likely to have had unmet need for LAPMs as compared with counterparts (OR=0.54, 95%CI: 0.32, 0.91).

Results of multivariate regression analysis showed that women who did not desire any more children were around 4 times more likely to have had unmet need for LAPMs as compared with those mother who did want one or more children (AOR=3.98, 95%CI: 1.89, 8.42).Mothers who knew the sources of LAPMs were 78% times less likely to have had unmet need as compared with those did not know the sources (AOR= 0.18, 95%CI: 0.08, 0.39) (Table 9).

Table 9: Shows the Association between socio-demographic characteristics, reproductive history of the participants, knowledge and use of LAPMs Fitche town, 2012.

Variables	Using LAPMs		COR (95%CI)	AOR (95%CI)
Age	**Yes (%)**	**No (%)**		
15-24	5(2.9)	167(97.1)	1	
25-34	36(9.8)	330(90.2)	3.64(1.40,9.46)*	
35-49	24(11.5)	184(88.5)	4.36(1.63, 11.68)*	
Occupation				
House wife	39(9.2)	384(90.8)	1	
Merchant	7(5.9)	112(94.1)	0.62(0.27, 1.41)	
Government employee	8(5.9)	128(94.1)	0.62(0.28, 1.35)	
All Others	11(16.2)	57(83.8)	1.90(0.92, 3.92)	
Educational status				
No education	34(11.2)	269(88.8)	1	
Able to read and write	5(11.4)	39(88.6)	1.01(0.37, 2.75)	
Elementary school	12(7.6)	146(92.4)	0.65(0.33, 1.29)	
High school and above	14(5.8)	227(94.2)	0.49(0.26, 0.93)*	
Monthly family income				
Less than 638 Birr	47(9.7)	439(90.3)	1	
638-1020 Birr	8(5.4)	140(94.6)	1.09(0.53, 2.23)	
Grater 1020 Birr	10(8.9)	102(91.1)	0.58(0.22, 1.53)	
Age at first marriage				
<18	37(7.9)	434(92.1)	1	
≥18	28(10.2)	247(89.8)	1.33(0.79, 2.23)	
Desired to have children				
Not any more	54(14)	331(86.0)	**5.19(2.67, 10.09)***	**3.98(1.89, 8.42)***
One and above	11(3.0)	350(97.0)	1	1
Number of pregnancy				
<2	15(4.5)	316(95.5)	1	
≥2	50(12)	365(88.0)	**2.89(1.59, 5.24)***	
Number of alive children				
<2	16(4.4)	349(95.6)	1	1
≥2	49(12.9)	332(87.1)	3.22(1.79, 5.77)*	**2.24(1.11, 4.50)***
Heard about LAPMs				
Yes	38(7.2)	492(92.8)	**0.54(0.32, 0.91)***	
No	27(12.5)	189(87.5)	1	
Knowledge of LAPMs				
Yes	26(6.8)	354(93.2)	0.62(0.37, 1.03)	
No	39(10.7)	327(89.3)	1	
Know sources of LAPMs				
Yes	36(5.9)	577(94.1)	**0.22(0.13, 0.38)***	**0.19(0.09, 0.39)***
No	29(21.8)	104(78.2)	1	1
Discussion with husband				
Yes	22(8.9)	226(91.1)	1.03(0.60, 1.76)	
No	43(8.6)	455(91.4)	1	

8 DISCUSSION

According to this survey, 71% of the respondents heard about LAPMs and 70.4%, 59.9%, 11.3% and 3.6% heard about Implant, IUD, Female sterilization and male sterilization respectively which higher as compared with the finding of the EDHS reports[1] and slightly higher as compared with study in Mekele town which was 64%[16]. This might be due to the difference in resident of the study participants, access to information and study period.

In this study the overall prevalence of use LAPMs was 11.3% which was comparable with finding in Mekele town (12%)[16] but higher as compared with EDHS 2011 report [1] which might be due to the study area and study population since EDHS used different source of population including rural areas where less access to information and service as compared with urban. The total demand for LAPMs in fitche town was 20% .It is almost similar with the study in Batu town (24.4%)[30].

The use of LAPMs has not kept pace with that of short-acting methods, such as oral contraceptives and injectables. Data from demographic and health surveys from four sub-Saharan countries (Ghana, Kenya, Senegal and Tanzania) [14] and different study done in Ethiopia (Jimma, Mekele, Butajira) [17, 16, 31] show that the proportion of women currently using LAPMs is significantly lower than the proportion using short-acting methods which was similar in Fitche town 11.3% versus 27.2%. The utilization rate of each method in Fitche town was IUD 15(2.01%), implant 62(8.3%) and female sterilization 7(0.9%). As study done in Tehuledere woreda of south Wollo zone in Amhara Regional state shows Norplant (39.0%), IUD (8.7%) and 52% have undergone voluntary surgical contraception. This high discrepancy exists due to the strong awareness creation about LAPMs in Tehuledere woreda after baseline survey[15]. The major source to obtain contraceptives for the married women in fitche town was a public health facility. This finding was consistent with finding of EDHS report and the study done in Mekele town[16, 18].

In this study large proportion of women use LAPMs for permanent limitation number of children than for spacing number of children. It is consistent with what was reported from Amhara regional state Tehuledere woreda and Nigeria [15, 32]. This might be due to those mothers who want to space their children prefer short-term rather than LAPMs.

A discrepancy exists between the proportion of women who wish to stop having children and the proportion who are using a LAPM. Lack of awareness, fear side effect, husband opposition, and preference of short acting were reasons mentioned by respondents for not using LAPMs which is also supported by study done in Mekele town and Rural areas of Ethiopia[16].

The intention to use LAPMs of contraceptives in the town is high 332 (44.5%) of the respondents intended to use LAPMs in the future. Among them 84(25.3) were currently using LAPMs and also intended to continue the method in the future. This may be shows that the convenience of the LAPMs for the users. From those intended to use 248(74.7%) were not using LAPMs. Majority of the respondent 215(64.8%) were intended to use implant followed by IUD 96(28.9%). Providing service for those intending to use and minimizing barriers to intention through effective IEC may increase the contraceptive use rate and reduces the unmet need for LAPMs[18].

Results of regression analysis showed that general knowledge of LAPMs, desired number of children and discussion with husband were significant association with demand for LAPMs.

Those women who did discuss about family planning and use of LAPMs with their husband were 5.19 times more likely to use LAPMs as compared with those women who did not discuss with their husband (*AOR=5.19, 95%CI: 2.86, 8.42)* which was similar with Study done in Jimma, Butajira districts and other African countries[25, 31, 14]. Discussion might be create better opportunity for decision and use of LAPMs of contraceptives by couples through negotiation and influence of men and

favors joint decision making on contraceptive use. In this survey, from those discussed with their husband 88.3% of their husband approve the use of LAPMs. Approval of husband is important to increase the utilization and decrease the discontinuation of contraceptive methods due to fear of husband opposition[17]

Women those who not desired any more children were 3.15 times more likely to use LAPMs as compared with those who wanted one and above children *(AOR=3.15, 95%CI: 1.88, 5. 27)*. It was supported by finding of research done in Mekele town which indicates women those who didn't want children were 2.5 more likely to use LAPMs as compared with those who want to have children *(AOR=2.5, 95%CI: 1.4, 5.1)*[16].

Women those who heard about LAPMs were 5.2 times more likely to use LAPMs as compared with those not heard about LAPMs (AOR= 5.19, 95%CI:1.78, 15.16). This might be due to the fact that awareness about the methods decrease the fear of side effects , myth and misconceptions about the method and other health concerns [27 ,18].

Women who did not desire any more children were around 4 times more likely to have had unmet need for LAPMs as compared with those mother who did want one or more children (AOR=3.98, 95%CI: 1.89, 8.42). This might be due to different reasons such as lack of knowledge, fear of side effects, husband opposition and self opposition. Meting the unmet need for those women who had unmet need we can prevent unintended pregnancy and improve maternal and child health. Mothers who knew the sources of LAPMs were 78% times less likely to have had unmet need as compared with those did not know the sources (AOR= 0.18, 95%CI: 0.08, 0.39).

9 LIMITATIONS OF THE STUDY

The study did not included unmarried women including young adults who were sexually active and might be at risk of unintended pregnancy because of limitation of resources and may the groups need to be studied alone since they have different characteristics in terms of contraceptive use.

10 CONCLUSION

- ☞ A significant number of participants had low knowledge on LAPMs particularly male sterilization.

- ☞ Even though the utilization of LAPMs of contraceptives in the town was higher as compared to the result of other studies in some parts of the country, the use of LAPMs has not kept pace with that of short-acting method especially, with injectables.

- ☞ A discrepancy exists between the proportion of women who wish to stop having children and who are using LAPM.

- ☞ Lack of awareness, fear of side effect, husband opposition, and preference of short acting were reasons mentioned by respondents for not using LAPMs.

- ☞ There is missed opportunity of giving Education about LAPMs both at Health facility and community level.

- ☞ General knowledge of LAPMS, desire number of children and discussion with husband had significant association with demand for LAPMs.

11 RECOMMENDATION

- Zonal Health Department in collaboration with Partners and Woreda Health office need to facilitate awareness creation on LAPMs by strengthening IEC.
- Health professionals and HEWs need to counsel women about long acting and permanent contraceptive methods during health facility and home visit (especially, during ANC, delivery care, Postnatal Care, Immunization).
- HEWs need to counsel and encourage women to discuss about family planning and use of LAPMs with their husband.
- Further research on accessibility and quality of LAPMs services need to be done.

12 REFERENCES

1. Central Statical Agency(CSA). Ethiopia Demographic and Health Survey Report 2011. Accessed on 3/5/2011] Available from: http://www.csa.gov.et/docs/EDHS%202011%20Preliminary%20Report%20Sep%2016%202011.pdf

2. Ministry of Health(MOH).Family Planning Extension Package.September 2003 Accessed on 3/12/2011]; Available from: http://cnhde.ei.columbia.edu/training/documents/Family_Planning.pdf

3. Famly Health International. Addressing Unmet Need for Family Planning in Africa. 2007.Accessed on 5/12/2011];Available from: http://www.k4health.org/system/files/unmetneedforFP_Africa.pdf

4. Population Referance Bureau(PRB). World Population Data Sheet. 2011.

5. UNFPA and Harvard School of PublicHealth. State of world population 2011 People and possibilities in a world of 7 billion. 2010. Accessed on 6/01/2012]; Available from: http://www.unfpa.org/webdav/site/global/shared/documents/publications/2011/EN-SWOP2011-FINAL.pdf.

6. USAID/Health Policy Initiative. The Cost of Family Planning in Ethiopia. February 2010. Accessed on 10/02/2012]; Available from: http://www.healthpolicyinitiative.com/Publications/Documents/1091_1_Ethiopia_Brief_FINAL_7_12_10_acc.pdf

7. UNFPA. The State of The World's Midwifery delivering Health,Saving Lives. 2011.

8. WHO. Packages of Interventions for Family Planning, Safe Abortion Care, Maternal, Newborn and Child Health. 2010. Accessed on 12/02/2012]; Available from: http://whqlibdoc.who.int/hq/2010/WHO_FCH_10.06_eng.pdf

9. MOH. Health Sector Development Program IV 2010/11 – 2014/15 Final Draft. October 2010.

10. USAID/Health Policy Initiative. Achieving the MDGs Eradicate The contribution of family planning Ethiopia. July 2009. Accessed on 6/03/2012]; Available from: http://www.usaid.gov/our_work/global_health/pop/techareas/repositioning/mdg_pdf/ethiopia.pdf

11. Singh S. et al. The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health. 2009. Accessed on 6/03/2012]; Available from: http://www.guttmacher.org/pubs/AddingItUp2009.pdf.

12. Wickstrom J. and R. Jacobstein, Commentary Contraceptive Security: Incomplete Without Long-Acting and Permanent Methods of Family Planning. December 2011. 42(4).

13. Population Referance Bureau(PRB). “Family planning worldwide 2008 data sheet.”.2008. Accessed on 10/03/2012]; Available from: http://www.prb.org/pdf08/fpds08.pdf

14. Janowitz B., and Otterness C., The Commercial Sector’s Role in Providing Long-Acting and Permanent Methods. 2006.

15. Mengistu A. Lakachew W., and Melkamu Y., Improving the range of contraceptive choices in rural Ethiopia. Ethiopian Jornal of Health Development 2006. 20(2): p. 74-78.

16. Alemayehu M. *et. al*.Factors associated with utilization of long acting and permanent contraceptive methods among married women of reproductive age in Mekelle town, Tigray region, north Ethiopia. BMC Pregnancy and Childbirth, 2012. 12(1): p. 6.

17. I.S.KO. et al. Family planning practice and related factors of married women in Ethiopia. International Nursing Review, 2010. 57: p. 377-382.

18. Centeral Statistical Agency(CSA). Ethiopia Demographic Health survey 2005. September 2006. Accessed on 16/05/2010]; Available from: http://www.csa.gov.et/surveys/DHS/Demograpiic_and_Health_Survey_2005/survey0/data/docs%5Cpdf%5CDHS_survey_report_2005.pdf

19. Mitchel M. and Thistle P. Acceptability of levonogestrel subdermal implants verses tubal-ligation for long term contraception in rural population of Zimbabwe. 70(6).

20. Akafuah R. and Sossou M. Attitudes toward and use of knowledge about family planning among Ghanaian men. International Journal of Men’s Health, 2008. 7(2): p. 109-120.

21. The ACQUIRE Projec. Improving Use of Long-Term and Permanent Methods of Contraception in Guinea: A Performance Needs Assessment. 2005. Accessed on 5/04/2012];Available from: http://www.acquireproject.org/archive/files/11.0_research_studies/er_study_10.pdf

22. Kebede Y. Quality of family planning service in Dembia district, north west Ethiopia. Ethiopian Medical Journal, 2007. 45(1): p. 29-38.

23. Loha E. et. al. Assessment of quality of care in family planning services in Jimma zone, southwest Ethiopia. Ethiopian Journal of Health Development, 2004. 18(1): p. 8-18.

24. Subramanian L. et al. Revitalizing Underutilized Family Planning Methods. Using Communications Community Engagement to Stimulate Demand for the IUD in Uganda.2008. Accessed on 5/4/2012]; Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1694882/.

25. Beekle A. et al. Awareness and determinants of family planning practice in Jimma, Ethiopia. International Nursing Review, 2006. 53: p. 269-276.

26. Terefe A. and Larson C. Modern contraception use in Ethiopia: does involving husbands make a difference? American Journal of Public Health, 1993. 83(11): p. 1567-1571.

27. Degu G. Determinant factors of fertility and contraceptive use in northwest Ethiopia: With special reference to the application of the Bongaarts' model examination of the levels. February 2009.

28. Stephenson S. et al Contextual Influences on Modern Contraceptive Use in Sub-Saharan Africa. American Journal of Public Health, July 2007. 97(7).

29. Web admininistrator. Fitche Woreda's profile. 26 February 2011 3/12/2011]].

30. Haile A. and Fantahun M. Demand for long acting and permanent contraceptive methods and associated factors among family planning service users, Batu town, Central Ethiopia. Ethiopian Medical Journal, Jan 2012 ;50(1):31-42. 50(1): p. 31-42.

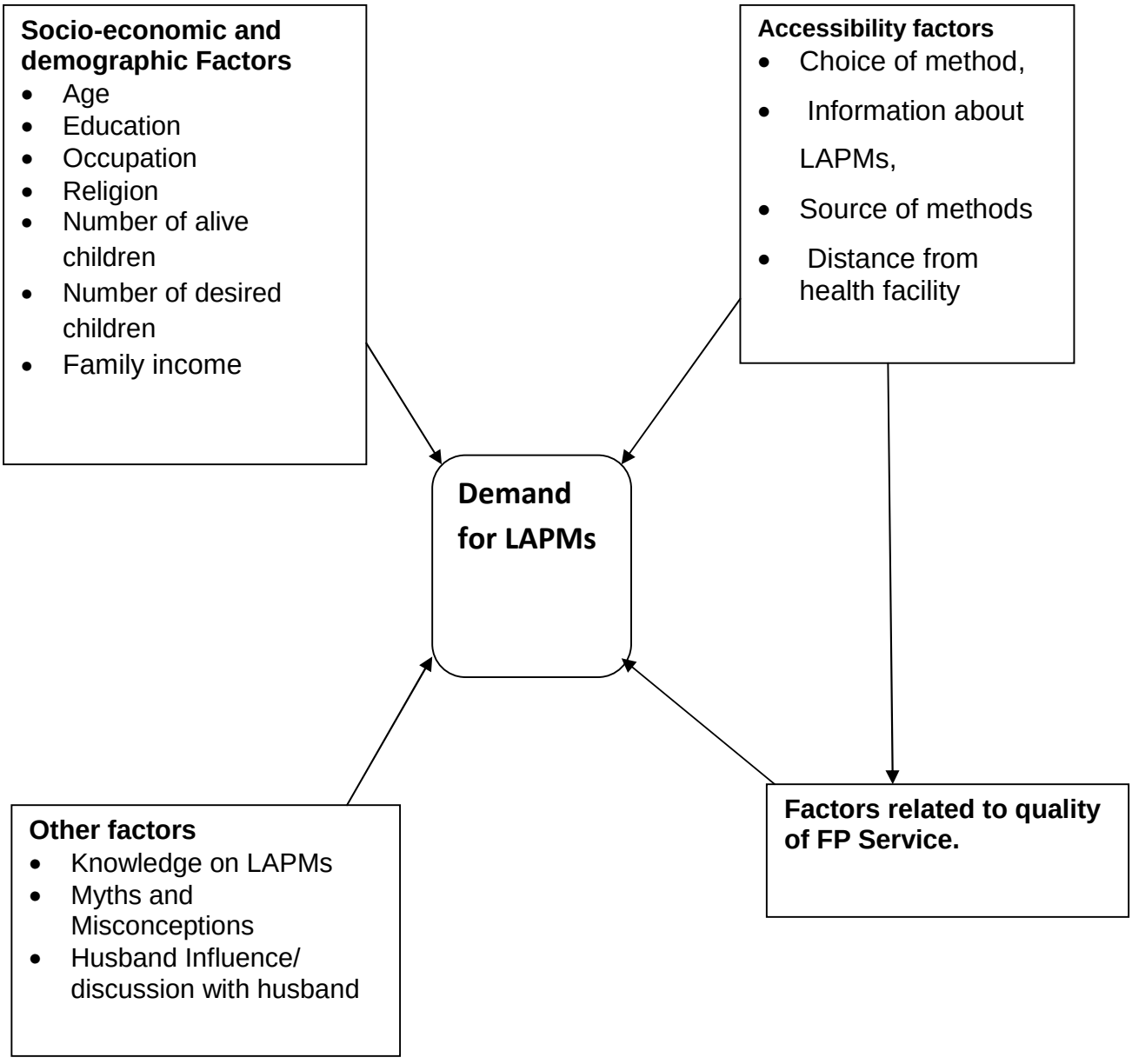
31. Mekonnen W. and Worku A.Determinants of low family planning use and high unmet need in Butajira District, South Central Ethiopia. Reproductive Health, 2011. 8:37.

32. Chigbu B. et al. CONTRACEPTIVE CHOICES OF WOMEN IN RURAL SOUTHEASTERN NIGERIA. Nigerian Journal of Clinical Practice, June 2010. 13(2): p. 195-199.

13 ANNEXES

Annex 1 : Conceptual frame work

Conceptual frame work of Demand for long acting and permanent contraceptive methods, North Showa zone, Fitche Town, 2012**.**



Annex 2: Questionnaires

Informed consent form (English version)

Good morning/afternoon? My name is _____

Thank you for taking the time to talk with me. I came from University of Gondar, Institute of Public Health, College of Medicine and Health Science, a higher institution conducting Joint Master of Public Health Program (MPH). I am collecting data for the research purposes to assess demand for long acting and permanent contraceptive methods and associated factors by asking married women who live in this town. Based on the information what you give me and other related information the result of this study will help to develop a better family panning service in the country by working with ministry of health, north Showa zone health office, Oromia region and other responsible bodies. Your truth full answers for all of our questions about family planning service will be very important to know the conditions of long acting and permanent contraceptive methods and associated factors in Fitche town. Your answers will be confidential and secret. You may also stop the interview at any time. If you have any questions about the study you can ask. If you agree to be interviewed, we will go 15 minutes for us to complete the questionnaire.

Do you agree? Yes------- No------

Thank you.

Respondent No. _____

Gare Misoma No._____

Interviewer No._____

Date of interview_____

Instruction

Be polite to the respondent and write or thick the respondent's response, do not add your own judgment.

Code	Questions	Possible answers	Skip to
Socio –demographic information			
101	Age of respondent	1. ------years 2. I don't know	
102	Current occupation	1. Farmer 2. House wife 3. Merchant 4. House maid 5. Daily laborer 6. Gov't employee 7. Private employee 8. Student 9. Others(specify) ---	
103	Ethnicity of the respondent	1. Oromo 2. Amhara 3. Tigre 4. Somale 5. Others(specify) ----------	
104	Religion of the respondent	1. Orthodox 2. Protestant 3. Muslim 4. Others(specify) ----------	
105	Educational status of the Respondent	1. Illiterate 2. Read and write 3. Elementary school 4. High school 5. Collage/University	
106	Family monthly income	_____ Birr	
Reproductive information			
107	What was your age at first marriage?	1. --------- Years. 2. I don't remember	

108	Have you ever been pregnant?	1. Yes 2. No	If No skip to #112
109	If ***'yes'*** for *#108*, How old were you when you first get pregnant?	1. --------- years 2. I don't remember	
110	Have you ever given birth to a child?	1. Yes 2. No	
111	If ***'yes'*** for *#110*, What is the number of your children alive now?	1. Enter Number -------	
112	What is the number of children you want to have in the future?	1. Enter Number ---- 2. As God gave me 3. I don't need any more	
Information heard about LAPMs and source of information			
113	Have you ever heard about LAPMs?	1. Yes 2. No	If No skip to #116
114	If ***'yes'*** for *#113*, Which long term or permanent contraception method/s have you heard about?	1. IUD 2. Implants 3. Female sterilization 4. Vasectomy	
115	If ***'yes'*** for *#113*, from which source/s did you hear?	1. Radio 2. TV 3. News paper 4. Extension workers 5. Community events 6. Other (specify)----------	
Knowledge of LAPMs and sources of methods			
116	Do you know any contraceptive methods?	1. Yes 2. No	If No skip to #118

117	If ***'yes'*** for *#116*, which FP methods do you know*?(circle all the mentioned methods)*	1. Pills 2. Injectables 3. Female condoms 4. Male condoms 5. IUD 6. Implant 7. Female sterilization 8. Male sterilization 9. Others(specify)----------	
118	Do you know any long term and permanent contraceptive methods?	1. Yes 2. No	If no skip to #120
119	If ***'yes'*** for *#118*, which one do you know?(*circle only method mentioned by the respondent*)	1. IUD 2. Implants 3. Female sterilization 4. Vasectomy	
120	Do you know where long acting and permanent contraceptives are obtained in your area?	1. Yes 2. No	If No skip to #122
121	If ***'yes'*** for *#120*, What source of long term and permanent contraceptive methods do you know?	1. Gov't hospital 2. Health center 3. Health post 4. Privet hospital/clinic 5. Others(specify)---------	
122	Have you ever visited health facility within the last 12 months?	1. Yes 2. No	If No skip to #126
123	If ***'yes'*** for *#122*, which health facility?	1. Gov't hospital 2. Health center 3. Health post 4. Privet hospital/clinic 5. Others(specify)----------	
124	If '***yes'*** for *#122*, for what reason?	1. To get Rx for my illness 2. To get Rx for my child 3. For ANC follow up 4. For immunization	

		5. Others(specify)----------	
125	During your visit have you got any information about LAPMs from service provider?	1. Yes 2. No	
126	In the last 12 months, were you visited by a community based health agent/distributor who talked to you about family planning?	1. Yes 2. No	
127	If ***'yes'*** for *#126*, During their visit did they discuss about long acting and permanent contraceptive methods with you?	1. Yes 2. No	
Discussion with husband and about FP methods and decision.			
128	Have you discussed about family planning and use of long term and permanent with your husband?	1. Yes 2. No	If No skip to #131
129	If ***'yes'*** for *#128*, what was his opinion?	1. Approve 2. Disprove 3. Don't know	
130	Who mainly decides about using LAPMs?	1. Mainly Self decision 2. Mainly husband decision 3. Both decide together 4. Other (specify)----------	
Long acting and permanent contraceptive methods ever used			
131	Have you ever used any contraceptive methods?	1. Yes 2. No	If No skip to #133

132	If ***'yes'*** for *#131*, which one?(*circle all the method mentioned by respondent)*	1. Pills 2. Injectables 3. Male condoms 4. Female condoms 5. IUD 6. Implant 7. Female sterilization 8. Others(specify)----------	
133	Have you ever had a husband who had an operation to avoid having any more children?	1. Yes 2. No	
Currently use of LAPMs, sources, distance and reasons for not use			
134	Are you using long term and permanent contraceptive method now?	1. Yes 2. No	If No skip to #138
135	If ***'yes'*** for *#134*, which method are you using now?	1. Norplant 2. IUD 3. Female sterilization	
136	For what reason do you use LAPMs now?	1. For spacing 2. For limiting	
137	From where do you get family planning service currently?	1. Gov't hospital 2. Health Center 3. Health post 4. Privet hospital/clinic 5. Others(specify)----------	
138	If '***No'*** for *#134*, what are the reason/s of not to use?	**A. Fertility related** 1. Not have sex 2. Infrequent sex 3. Want many child as possible 4. In fecund 5. Brest feeding **B. Opposition to use** 6. Respondent	

		7. Husband opposed 8. Others opposed 9. Religious prohibition 10. Cultural prohibition **C. Lack of knowledge** 11. Knows no method 12. Knows no source **D. Method related** 13. Health concern 14. Fear of side effect 15. The method not available 16. Cost too much 17. Inconvenient to use 18. Prefer short term 19. Other (specify)----------	
139	Distance of home from nearest health facility	--------(travel time to service in minute)	
Pregnancy conditions and intention to use LAPMs			
140	Are you pregnant now?	1. Yes 2. No 3. Not sure	If No skip to #145
141	If ***'yes'*** for *#140*, is it intended?	1. Yes 2. No	
142	If '***No'*** for *#141*, when did you want to be pregnant?	1. After two years 2. Not any more 3. Not decided	
143	If ***'after two years'*** for *#142*, which method would you prefer to use?	1. Pills 2. Injectables 3. Female condom 4. IUD 5. Implant 6. Female sterilization	

		7. Others(specify)----------	
144	If ***'not any more'*** for *#142*, which method would you prefer to use?	1. IUD 2. Implant 3. Female sterilization 4. Others(specify)----------	
145	If '***No***' for *#140*, when do you want to have your next baby?	1. Soon 2. After two years (latter) 3. Not any more 4. Not decided	
146	If ***'after two years'*** for #145, which method do you prefer to use?	1. Pills 2. Injectables 3. Female condom 4. IUD 5. Implant 6. Female sterilization 7. Others(specify)----------	
147	If ***'not any more'*** for #145, which method do you prefer to use?	1. IUD 2. Implant 3. Female sterilization 4. Others(specify)----------	
Intention to use LAPMs in the future and reason for not intended to use			
148	Do you want to use any of long acting or permanent methods to delay or avoid pregnancy in the future?	1. Yes 2. No 3. Not sure	If No skip to #150

149	If '***yes'*** for *#148*, which one?	1. Norplant 2. IUD 3. Female sterilization 4. Other(specify)----------	
150	If '***No'*** for # *148*, why?	**A. Fertility related reasons** 1. Not have sex 2. Infrequent sex 3. Want many child as possible 4. In fecund 5. Brest feeding **B. Opposition to use** 6. Respondent 7. Husband opposed 8. Others opposed 9. Religious prohibition 10. Cultural prohibition **C. Lack of knowledge** 11. Knows no method 12. Knows no source **D. Method related** 13. Health concern 14. Fear of side effect 15. The method not available 16. Cost too much 17. Inconvenient to use 18. Prefer short term 19. Other (specify)----------	
Cost and convenience of service delivery point			
151	How much did you pay for FP method you are using?	1. ----------birr 2. No payment	
152	How would you see the convenience of the service point where you have obtained the service?	1. Convenient 2. Inconvenient	If convenient skip to #154
153	If for *#152* ***'inconvenient'*** what are the factors that makes it inconvenient?	1. Lack of privacy 2. Behavior of providers 3. Long waiting hours 4. Others (specify)----------	

Myth and misconception about LAPMS			
154	Have you heard myths and/or misconception in the community about the LAPMs?	1. Yes 2. No	
155	If '**yes'** *#152*, specify for each methods.	1. IUD---------- ---------- 2. Implant---------- ---------- 3. F .sterilization---------- ---------- 4. M. sterilization---------- ----------	

END OF THE INTERVIEW

THANK YOU.

Annex 3: Questionnaires (Afan Oromo version)

Unka fedhii hirmaattotni qo'anna kana keessatti hirmachuuf qaban ittin mirkannessamu.

Akkam bultan/oolttan? Maqaan koo ----------jedhama. Kannan dhufe Yuniversiitii Gondoor, Dhabbata Fayyaa Hawwasaa, kollejjii Medisiinii fi Saayinsii Fayyaa irra yommuu ta'u, sagantaa barumsa maastersii Fayyaa Hawaassan barachaan jira. Amma magaala kana keesaatti qo'annoo waa'ee fedha dubartoonni abbaa manaa qaban mala karoora maatiin ittin to'atamu keessa kan yeroo dheeraaf fi umurii guutuu ulfa ittissuu danda'uf qabanii fi wantoota isaan waliin hidhaata qaban irratti odeeffannoo adda addaa sassaabaan jira. Bu'aa Oddeffannoo isin nuuf kennittan kan irratti hunda'uudhan gara fuul- duraatii kenninsii tajaajila karoora maatii magaalaa fi godina kana keessatti, akkasuma darbees nannoo keenya fi guutummaa biyya keenyaa irratti kennamu akka foyyessinuuf nu gargaara. Deebii dhugaa ta'ee yoo nuuf kennitan, itti fayyadamnii fi kenninsi gosa karoora maatiin yeroo dheeraa fi umurii guutuu ittiin ittisamu kun maal irra akka jiru beekuuf nu gargaara. Deebiin sin nuuf laattan hiciitiidhaan waan qabamuuf, akkasumas Yeroo barbaaddanitti dhaabuu dandeessuu waan ta'eef rakkoon sin irra gahu tokkollee hin jiru. Gaaffii kammiyyuu yoo qabaattan yeroo barbaaddan gaaffachuu dandeessu. Yoo kan walii galle ta'e yeroo daqiiqa 0 hin caalleef waliin turra.

Itti walii galtuu ? 1. Eeyyee 2. Lakki

Galatoomaa

Gaaffilleewwan

Lakk. deebistuu_____

Lakk. Garee misoomaa _____

Lakk. Gaafataa _____

Guyyaa_____

Qajeelfama

Gaafatamtuutti Naamusa gaariin dhihachuudhaan deebii isaan siniif kennan qofa barreessaa ykn itti maraa, yaada mataa keessaniin hin guutina.

Lakk. Koodii	Gaaffilleewwan	Deebii ta'uu kan danda'an	Gara itti aanutti
	Haala dimoograaffii fi hawwasummaa		
101	Umurii deebistuu	1. Waggaa---------- 2. Hin beeku	
102	Hojii amma irra jiru	1. Qonnaan buultuu 2. Haadha manaa 3. Daldaltuu 4. Hojjettuu manaa 5. Hojjettuu guyyaa 6. Hojettuu mottummaa 7. Hojettuu miti-mootummaa 8. Barattuu 9. Kan biro(ibsi)----------	
103	Sabummaa	1. Oromoo 2. Amaaraa 3. Tigree 4. Sumaalee 5. Kan biro(ibsi)----------	
104	Amantaa	1. Ortoodoksii 2. Prootestaantii 3. Musiilima 4. Kan biraa(ibsi)----------	
105	Sadarkaa barumsaa deebistuu	1. Kan hin baranne 2. Dubissuu fi barreessu kan dandeessu 3. Sadarkaa 1ffaa 4. Sadarkaa 2ffaa 5. Sadarkaa kolleejjii/ yunversiitii	
106	Galii maatii	Qr._____.	
	Seenaa wal hormaataa		

107	Yeroo jalqaba heerumte umuriin kee meeqa?	1. Waggaa---------- 2. Hin yaadadhu	
108	Kanaan dura Ulfooftee beektaa?	1. Eeyyee 2. Lakki	*Lakki⇨# 112*
109	Yoo deebiin *lakk. 108* ***'eeyyee'*** ta'e, umuriin kee meeqa yeroo isa jalqabaa ulfooftte?	1. Waggaa ---------- 2. Hin yaadadhu	
110	Kanaan fuuldura deesseettaa?	1. Eeyyee 2. Lakki	
111	Yoo deebiin *lakk.110* ***'eeyyee'*** ta'e, ijjoollee meeqa qabdaa?	Lakk. Guutaa----------	
112	Gara fuula duratti ijoollee meeqa godhachuu barbaaddaa?	1. Lakk. Guuti.---------- 2. Hamma waaqni naaf kenne 3. Hin barbaadu	
Oddeeffannoo waa'ee mala qusannoo maatii yeroo dheeraa fi umurii guutuu fi madda odeeffannoo			
113	Waa'ee mala karoora maatii yeroo dheeraa fi umurii guutuu dhageessee beektaa?	1. Eeyyee 2. Lakki	*Lakki⇨# 116*
114	Yoo deebiin *lakk.113* ***'eeyyee'*** ta'e, waa'ee isa kamii dhageessee ?(***kan deebistuun sitti himte qofaa filadhu).***	1. Kan gadameessa keessa awwaalamu/IUD 2. Kan irree keessa awwaalamu/Implant 3. Dubartii baqaqsanii maseensuu/Female sterilization 4. Dhiira baqaqsanii maseensuu/Male sterilization	
115	Yoo deebiin **lakk.113** '***eeyyee'*** ta'e, eessaa dhageessee?	1. Raadiyyoorraa 2. Televizhiniirraa 3. gaazeexaa 4. Hojjettota eksteenshiinii fayyarraa 5. Walga'ii nannoorraa 6. Kan biroo(ibsa)----------	
Beekumsa waa'ee mala qusannoo maatii yeroo dheeraa fi umurii guutuu fi bakka argamsaa			
116	Mala karoora maatii keessaa kan beektu jiraa?	1. Eeyyee 2. Lakki	*Lakki⇨# 118*
117	Yoo deebiin *lakk. 116* '***eeyyee'*** ta'e, isa kam beektaa? ***(Kan himame qofatti mari)***	1. Kiniinii /pills 2. Lilmoo/injectable 3. Kondomii dhalaa 4. Kondomii dhiiraa 5. Kan gadameessa keessa awwaalamu 6. Kan irree keessa awwaalamu	

		7. Dubartii baqaqsanii maseensuu 8. Dhiira baqaqsanii maseensuu 9. Kan biro(ibsaa)----------	
118	Mala qusannoo maatii yeroo dheeraa fi umurii guutuu keessaa kan beektu jiraa?	1. Eeyyee 2. Lakki	*Lakki⇨# 120*
119	Yoo deebiin *lakk.118* '***eeyyee'*** ta'e, isa kam beektaa?	1. Kan gadameessa keessa awwaalamu 2. Kan irree keessa awwaalamu 3. Dubartii baqaqsanii maseensuu 4. Dhiira baqaqsanii maseensuu	
120	Bakka Malli qusannoo maatii yeroo dheeraa fi umurii guutuu itti argamu beektaa?	1. Eeyyee 2. Lakki	*Lakki⇨# 122*
121	Yoo deebiin *lakk.120* '***eeyyee'*** ta'e, eessafaa beektaa?	1. Hospitaala mootummaa 2. Buufata fayyaa 3. Kellaa fayyaa 4. Hospitaala/kilinika dhuunfaa 5. kan biro(ibsaa)----------	
122	Ji'a 12'n darban keessatti dhaabbatta fayyaa dhaqxee beektaa?	1. Eeyyee 2. Lakki	*Lakki⇨# 126*
123	Yoo deebiin *lakk.122* '***eeyyee'*** ta'e,dhaabbata fayyaa kam dhaqxee beektaa?	1. Hospitaala mootummaa 2. Buufata fayyaa 3. Kellaa fayyaa 4. Hospitaala/kilinika dhuunfaa 5. kan biro(ibsaa)----------	
124	Yoo deebiin *lakk.122* '***eeyyee'*** ta'e, sabaaba maaliif dhaqxani?	1. Dhukubsadheen 2. Muccaan koo dhukkubsateeti 3. Hordoffii ulfaaf 4. Kittibaataaf 5. Kan biro(ibsa)----------	
125	Yeroo dhabbata fayya deemtetti waa'ee mala karoora maatii yeroo deera fi umurii guutuurratti odeeffannoo ogeessa fayyaarra argateettaa?	1. Eeyyee 2. Lakki	
126	Ji'a 12'n darban keessatti kan waa'ee dhimma karoora maatii irratt barsiisan mana keessan dhufaniiruu?	1. Eeyyee 2. Lakki	
127	Yoo deebiin *lakk.126* '***eeyyee'*** ta'e, waa'ee mala karoora	1. Eeyyee 2. Lakki	

	maatii yeroo deera fi umurii guutuu sin barsiisaniruu?		
Marii waa'ee mala karoora maatii abbaa manaa fi/ ykn nama biro waliin gochuu fi murteessuu			
128	Waa'ee itti fayyadama mala karoora maatii yeroo dheeraa fi umurii guutuu irratti abba mana kee waliin ni mari'attaa?	1. Eeyyee 2. Lakki	*Lakki⇨# 131*
129	Yoo deebiin *lakk.128* **'eeyyee**' ta'e, yaadii abba manaa keetii maal fakkata?	1. Ni mirkaneessa 2. Hin mirkanneessu 3. Hin beeku	
130	Eenyutu irra caalatti murteessa	1. Ofumaaf 2. Abba manaa koo 3. Lachuu keenyatu 4. Kan biraa(ibsaa)----------	
Itti fayyadama mala qusannoo maatii yeroo dheeraa fi umurii guutuu kan yeroo darbee			
131	Mala karoora maatiitti fayyadamtee beektaa?	1. Eeyyee 2. Lakki	*Lakki⇨# 133*
132	Yoo deebiin *lakk. 131* '***eeyyee'*** ta'e, isa kamiin fayyadamtee? (kan himame hunda filadhu)	1. Kiniinii /pills 2. Lilmoo/injectable 3. Kondomii dhalaa 4. Kan gadameessa keessa awwaalamu 5. Kan irree keessa awwaalamu 6. Dubartii baqaqsanii maseensuu 7. Kan biro(ibsaa)----------	
133	Abban manaa kee lammataa mucaa akka hin godhanneef baqaqfameeraa?	1. Eeyyee 2. Lakki	
Itti fayyadumsa mala karoora maatii yeroo dheeraa fi umurii guutuu yeroo ammaa,madda, fageenya fi sababa itti fayadamuu dhabuu			
134	Amma mala karoora maatiitti yeroo dheeraa fi umurii guutuu fayyadamaa jirtaa?	1. Eeyyee 2. Lakki	*Lakki⇨# 138*
135	Yoo deebiin *lakk. 134* ***'eeyyee'*** ta'e,isa kammitti fayyadamaa jirtaa?	1. Kan irree keessa awwaalamu Kan 2. gadameessa keessa awwaalamu 3. Dubartii baqaqsanii maseensuu	
36	Amma mala karoora maatii yeroo dheeraa fi umurii guutuu kana maaliif fudhatta?	1. Daa'ima walirraa butee dahuuf 2. Dahumsa siruma dhaabuuf.	

137	Yoo deebiin *lakk. 134* ***'eeyyee'*** ta'e, Yeroo amma kana mala karoora maatii kee eessaa fudhattaa?	1. Hospitaala mootummaa 2. Buufata fayyaa 3. Kellaa fayyaa 4. Hospitaala/kilinika dhuunfaa 5. kan biro(ibsaa)----------	
138	Yoo deebiin lakk.135 ' **lakki** 'ta'e, sababoonni ykn sababiin isaa malii?	**A. Sababa walhormaata waliin walqabatu/fertility related** 1. Saal-qunamtii hin godhu 2. Saal-qunamtii yeroo hundaa hin godhu 3. Ijjoollee baay'een barbaada 4. Dahuu hin danda'u 5. Harman hoosiisa **B. Faallessuu/opposition to use** 6. Waanan hin barbaadneef 7. Abban manaa koo waan na dhorkuuf 8. Namoonni biraa waan nadhorkaniif 9. Amantaan koo waan naaf hin eeyyamneef 10. Aadaan koo waan naa hin eeyyamneef **C. Beekumsaa dhabuurraan kan ka'e/lack of knowledge** 11. Malichaan hin beeku 12. Bakkan fudhuu hin beeku **D. Sababa mala ittisichaan walqabateen/Method related** 13. Dhimma fayyummaa 14. Sodaa midhaa inni qaqabsiisu 15. Hanqiin dhiyeessii 16. Baay'ina gatii 17. Fayyadamuuf mijahuu dhabuu 18. Isa yeroo gabaabaaf ittisu barbaaduu 19. Kan biro (ibsaa)----------	
139	Yeroo hangam sitti fuudhata dhabbatta fayyaa sitti dhihoo	Daqiiqaa ----------	

	jiru deemuuf?		
Haala ulfaa fi karoora/kaayyoo mala karoora maatii yeroo dheeraa fi umurii guutuutti fadamamuuf qaban			
140	Yeroo ammaa kana ulfadhaa?	1. Eeyyee 2. Lakki 3. Hin beeku	*Lakki⇨# 145*
141	Yoo deebiin *lakk140* '***eeyyee***' ta'e, barbaaddeetii?	1. Eeyyee 2. Lakki	
142	Yoo deebiin *lakk.141* **'*lakki*'** ta'e, yoom ulfaa'u barbaadda turte?	1. Waggaa lamaan booda 2. Siruma hin barbaadu 3. Hin murteessine	
143	Yoo deebiin *lakk.142* **'*waggaa lamaan booddee*'** ta'e,mala kamiin fayyadamuu barbaadda turte?	1. Kiniinii /pills 2. Lilmoo/injectable 3. Kondomii dhalaa 4. Kan gadameessa keessa awwaalamu 5. Kan irree keessa awwaalamu 6. Dubartii baqaqsanii maseensuu 7. Kan biro(ibsaa)----------	
144	Yoo deebiin *lakk. 142* **'*siruma hin barbaaduu'*** ta'e, mala kamiin fayyadamuu barbaadda turte?	1. Kan gadameessa keessa awwaalamu 2. Kan irree keessa awwaalamu 3. Dubartii baqaqsanii maseensuu 4. Kan biro(ibsaa)----------	
145	Yoo deebiin *lakk.140* '***lakki'*** ta'e,yoom muccaa godhachuu barbaadda?	1. Battalumatti 2. Waggaa lamaan booda 3. Siruma hin barbaadu 4. Hin murteessine	
146	Yoo deebiin *lakk.145* ***'waggaa lamaan booddee'*** ta'e,mala kamiitti fayyadamuu barbaadda?	1. Kiniinii /pills 2. Lilmoo/injectable 3. Kondomii dhalaa 4. Kan gadameessa keessa awwaalamu 5. Kan irree keessa awwaalamu 6. Dubartii baqaqsanii maseensuu 7. Kan biro(ibsaa)----------	
147	Yoo deebiin *lakk.145* **'*kan siruma hin barbaadne'*** ta'e, mala kamiin fayyadamuu barbaadda turte?	1. Kan gadameessa keessa awwaalamu 2. Kan irree keessa awwaalamu 3. Dubartii baqaqsanii maseensuu 4. Kan biro(ibsaa)----------	

Kakka'umsa Mala qusannoo maatii yeroo dheeraa fi umurii guutuu gara fuulduratti Itti fayyadamuuf jiruu fi sababoota kakka'umsa dhabuu			
148	Gara fuulduraatti mala karoora maatii yeroo dheeraa fi umurii guutuu fayyadamuu barbaaddaa?	1. Eeyyee 2. Lakki 3. Hin beekne	*Lakki ⇨#150*
149	Yoo deebiin *lakk.148***'*eeyyee'*** ta'e, isa kamiin?	1. Kan gadameessa keessa awwaalamu 2. Kan irree keessa awwaalamu 3. Dubartii baqaqsanii maseensuu 4. Kan biro(ibsaa)----------	
150	Yoo deebiin *lakk.148***'*lakki'*** ta'e, maalii sababiin isaa?	**A. Sababa walhormaata waliin walqabatu/fertility related** 1. Saal-qunamtii hin godhu 2. Saal-qunamtii yeroo hundaa hin godhu 3. Ijjoollee baay'een barbaada 4. Dahuu hin danda'u 5. Harman hoosiisa **B. Faallessuu/opposition to use** 6. Waanan hin barbaadneef 7. Abban manaa koo waan na dhorkuuf 8. Namoonni biraa waan nadhorkaniif 9. Amantaan koo waan naaf hin eeyyamneef 10. Aadaan koo waan naa hin eeyyamneef **C. Beekumsaa dhabuurraan kan ka'e/lack of knowledge** 11. Malichaan hin beeku 12. Bakkan fudhuu hin beeku **D. Sababa mala ittisichaan walqabateen/Method related** 13. Dhimma fayyummaa 14. Sodaa midhaa inni qaqabsiisu 15. Hanqiin dhiyeessii 16. Baay'ina gatii 17. Fayyadamuuf mijahuu dhabuu 18. Isa yeroo gabaabaaf ittisu barbaaduu 19. Kan biro (ibsaa)-------	
Gatii fi mija'ummaa bakka tajaajilli kennamuu			
151	Mala karoora maatii itti fayyadama jirtuuf Gatii	1. Qarshii ---------- 2. No payment	

	hammam kanfalta?		
152	Mija'uummaa bakka tajaajjilla argachaa jirtuu haala kamiin ilaalta?	1. Mijataa dha 2. Mijataa miti	*Mijataa ⇨#154*
153	Yoo deebiin *lakk.152* ***'mijataa miti'*** ta,e, sabaabiin isaa maali?	1. Hicitii hin eegan 2. Amala tajaajilaa 3. Yeroo dheeraaf eeguu 4. Kan bira(ibsaa)----------	
Yaada boodatti haafaa fi ilaalcha dogoongoraa waa'ee mala kaaroora maatii yeroo dheeraa fi umurii guutuu irratti jiru			
154	yaada duubatti hafaa fi Ilaalcha dogongoraa waa'ee mala karoora maatii yeroo dheeraa fi umurii guutuu irratti uumatni naannoo kana qabu dhageessee beektaa?	1. Eeyyee 2. Lakki	
155	Yoo deebiin *lakk. 154* ***'eeyyee'*** ta'e, kan maloota jiran kanarratti dhageessan ibsaa.	1. Kan irree keessaa awwalamu/ implant---------- 2. Kan gadameessa keessa awwalamu/IUD---------- 3. Dubartii baqaqsaanii maseensuu/F. sterilization---------- 4. Dhiira baqaaqsannii maseensuu/M. sterilization----------	

Gaaffiif deebiin keenya xummureerra.

Hirmaannaa keessaniif baay'ee galatoomaa!

Annex 4: Information Sheet (English version)

Introduction

This information sheet and consent form was prepared with the aim of explaining the research project that you are asked to join by the group of research investigators. The main aim of the research project is to Assess Demand for Long Acting and Permanent Contraceptive Methods and Associated Factors among Married Women in Fitche town.

The investigator includes twelve grade completed 4 female data collectors, two supervisors from Fitche Hospital and one senior advisor from University of Gondar, institute of public health, Collage of Medicine and Health Science.

Name of principal investigator: Kumesa Misganu
Name of advisor: Mezgebu Yitayal (MPH)
Name of the Sponsor: _____
Name of the Organization: University of Gondar, college of medicine and health

Science, Institute of Public Health

This Information Sheet was prepared by above mentioned whose main aim is to Assess Demand for Long Acting and Permanent Contraceptive Methods and Associated Factors among Married Women in Fitche town.

Purpose of the Research Project

The aim of this study is to Assess Demand for Long Acting and Permanent Contraceptive Methods and Associated Factors among Married Women. Long-acting and permanent methods are by far the most effective, very safe and convenient methods. Despite of these facts, LAPMs utilization remains relatively small. To identify the reason why the utilization of LAPMs was low, such study is important. In the study area no study was conducted on this issue previously. Therefore, this study will give valuable information to health care planner to develop better strategy to design and implement family planning program effectively.

Procedure

In order to Assess Demand for Long Acting and Permanent Contraceptive Methods and Associated Factors among Married Women in Fitche Town, we invite you to take part in our project. If you are willing to participate in our project, you need to understand and agree to participate. Then you will be requested to give your response by the data collectors.

For this questionnaire based study, study subjects are all married women of reproductive age, those who are living in this area and selected by sampling technique. All the response given by participants and the result obtained will be kept confidential by using coding system whereby no one can get access to your response.

Risk and/or Discomfort

There is no any risk or discomfort that you will face by participating in this research except dedication of time for responding the questioner. Your response will help as an important input to show the gap and means to improve the quality of the FP service. Any personal information registered in registration books will not be copied and transferred to other bodies. Every piece of information will be kept confidentially. There is no any risk in participating in this research project.

Benefits

If you are participating in this research project, there may not be direct benefit for you but your participation is likely to help us in showing the gap of long term and permanent contraceptives use and identifying the factors associated with LAPMs utilization which helps to develop better improvement of the service.

Incentives/Payment for Participating

You will not be provided any incentives or payment to take part in this research project.

Confidentiality

The information collected in this research project will kept confidential and information about you that will be stored in a file, without your name, but a code number assigned to it. And it will not be revealed to anyone except the principal investigator and investigator assistant only.

Right to Refusal or withdraw

You have the full right to refuse from participating in this research. This will not affect you from getting any kind of service. You have also the full right to withdraw from this study at any time you wish, without losing any of your right.

Contact Person

This research project proposal will be reviewed and approved by the ethical committee of University of Gondar. If you have any question you can contact any of the following individuals at any time.

1. **Investigator**: **Kumesa Misganu**
   Fitche Hospital
   Mobile: 09 12 05 66 39, Email- kumil8@yahoo.com

2. **Advisor**: **Mr. Mezgebu Yitayal (MPH)**
   University of Gondar, CMHS, Institute of Public Health
   Mobile: 09 20 25 27 61, Email-mezgebuy@gmail.com

Annex 5: Information sheet (Afan Oromo Version)

Waraqaa Oddeeffannoo

Seensa

Waraqaan oddeeffannoo fi unki waliigaltee kun kan qopaa'e, waa'ee proojektii qo'annoo garee qo'attootatiin qo'annichaa irratti akka hirmaattannif isin gaafatan isiniif ibsuufii ta'a.

Kayyoon qo'annichaa inni guddaan fedha dubartootiin habbaa manaa qaban mala karoora maatii yeroo dheeraa fi umurii guutuu tajaajilu irratti qabanii fi wantoota dhimma kanaan walitti dhufeenyaa qaban magaalaa fiichee keessatti adda baasnee beekuufi ta'a.

Qo'annaa kana irratti namootii raga walitti qaban dubartoota yoo xiqqaate kutaa 12ffaa xummuran afuur, to'attotaa adeemsaa raga sassaabuu lama kan narsiidhaan digrii qaban hospiitaala fiicheerraa fi gorsaan qo'ataa yuniversiitii gondorii irraa itti ni hirmaatu.

Maqaa Qo'ataa : Kumesa Misgaanuu

Maqaa gorsaa (advisor): Mezgebu Yitayal (MPH)

Maqaa Spoonserii: _____

Maqaa Dhabbattichaa: Yuuniveersiitii Gondor, Kolleejjii Mediisiinii fi Saayinsii Fayyaa, Dhaabbata Fayyaa Hawwaassaa.

Kaayyoo

Kaayyoon Qo'annichaa inni guddaan fedha dubartootiin habbaa manaa qaban mala karoora maatii yeroo dheeraa fi umurii guutuu tajaajilu irratti qabanii fi wantoota dhimma kanaan walitti dhufeenyaa qaban magaalaa Fiichee keessaa qo'achuufi dha.

Malli karoora maatii yeroo dheeraa fi umurii guutuu yeroo mala karoora maatii yeroo gabaabaaf tajaajilun wal bira qabnee ilaalluu faayidaa hedduu qaba. Fakkeenyaaf ulfa ittissuuf, yeroo qusachuu fi basii yeroo keessa bahu xiqeessuuf kan yeroo

gabaabaa tajaajilalan caalaa baay'ee filatamaa dha. Haata'uuyyuu malee itti fayyadamni isaa baay'ee xiqqaa dha. Maddi rakkoo kana fedha dhabuu haadholli irra kan ka'ee ta'uu ykn rakkoo biroon jirachuu isaa adda baasanii beekuuf qo'annoon akkassi barbaachiisaa dha. Rakkoo kana adda baasuuf kanaan ful-dura qo'annoon addatti magaalaa kana keessaatti geggeeffame waan hin jirreef qo'annoon kun rakko gama karoora maatiin jiru adda baasuu fi tajaajila keenninsa karoora maatii fooyyeessuuf ga'ee guddaa qaba.

Adeemsa

Dubartootni abba manaa qabdan fedha isin mala karoora maatii yeroo dheeraa fi umurii guutuuf qabdan fi wantoota dhimmichaan walitti dhufeenya qaban beekuuf qo'anna keenya keessatti akka hirmaattaniif afferamtaniittu. Yoo qo'anna kanarratti hirmaachuuf fedha qabaattan, wa'ee proojectii keenyaa beekuu fi itti hirmaachuuf fedhi keessaan murteessa dha. Edda fedha qabachuun keessan mirkanneeffamee booda akka gaaffii gaafatamtaniif deebii kennitan warri raga sassaaban isin gaafatu.

Hirmaattootiin qo'annoo kana dubartoota umurii wal-hormaataaf gahanii fi abbaa manaa qaban fi magaala kana keessa jiratan yommuu ta'an, deebiin isaaniin kennamu hicitumman isaa kan eegamedha.

Miidhaa ykn rakkina qaqqabuu danda'u

Yeroo keessan deebii nuuf deebiisuuf jecha aarsaa kan gootan irraa kan hafe, Qo'annoo kana keessatti waan hirmattanniif midhaa ykn rakkinni isin irra gahu tokkollee hin jiru. Deebiin keessan haanqinaa jiru adda baasnee beekuu fi tajaajila karoora maatii qulqullina qabu kennuuf heddu qooda qaba. Oddeffannoon isin irraa argamu gara birootti garagalchaan hin kennamu.odeeffannoon kamiyyuu hicitiin isaa kan eegamedha.

Bu'aa

Qo'annoo kana keessatti hirmaachuudhaan bu'aan kallachaan isin argattan jirachuu dhabaatus, hirmaannan keessan hanqina waa'ee mala karoora maatii yeroo dheera fi

umurii guutuu fayyadamuurratti jiruu fi wantoota isaan wal qabataan adda baasuuf nu gargaara. Kun immoo fooyya'insa tajaajila karoora maatiif iddoo guddaa qaba.

Miiroo (onnachiiftuu)

Qo'annoo kana keessatti akka hirmaattanniif ykn sababa hirmaattaniif kanfaltiin isiiniif qoodamu tokko illee hin jiru.

Hicciitummaa

Oddeeffannoon isin irraa walitti qabamu maqaa keessaniin alaa mallattoo dhoksaa ta'een waan barreeffamuuf hiccitummaan isaa kan eegamee yommuu ta'u, qo'ataa fi gargaartoota qo'ataa irraa kan hafee namni kan biroo kan beeku hin jiru.

Mirga hirmaattoota

Qa'annoo kana keessatti hirmaachuu dhiisuuf mirga guutuu qabdu. Qo'annicha keessatti hirmaachuu waan dhiistaniif tajaajila argachuu qabdan kan isinitti hira'utu hin jiru. Akkasumas, qo'annicha adda kuttanii bahuufis mirga guutu qabdu.

Nama qunnamamu

Propoozaliin kun koree *itiksii* Yuuniversitii Gondoriin kan mirkaneeffamu yommuu ta'u, yoo oddeffannoo caalaa argachuu barbaaddan kooree kana qunnamuun ni danda'ama. Gaaffii yoo qabaattan namootaa armaan gaditti caqaffaman qunnammuu ni dandeessu.

1. **Qo'ataa** : Kumasaa Misgaanuu
   Hospitaala Fitche
   Bilbila : 09 12 05 66 39. Email- kumil8@yahoo.com
2. **Gorsaa** : Mr. Mazgabuu Yittaayyaal

   Yuuniversiitii gondor

   Bilbila : 09 20 25 27 61. Email-mezgebuy@gmail.com

Annex 6: Declaration

I, the undersigned, senior MPH student declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health.

Name: _____

Signature: _____

Place of submission: Institute of Public Health, College of medicine and Health Sciences, University of Gondar.

Date of Submission: _____

This thesis work has been submitted for examination with my/our approval as university advisor(s).

Advisors

Name	**Signature**
_____	_____